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Metropolitan District Commission

Water Supply Study and
Environmental Impact Statement 2020

Task 1:
Water Demand Projections

Interim Technical Report

Appendices

Submitted To:
Metropolitan District Commission

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TOTSUPXX = Total Supply
MDCSUPXX = MDC Supply
LOCSUPXX = Local Supply

APPENDIX A-1

ADJUSTED REPORTED COMPONENTS OF WATER USE FOR 1980

(millions of gallons)

Town	Domestic	Nondomestic	Unaccounted-For	Total
Arlington	1,164	143	436	1,743
Belmont	681	274	151	1,106
Boston	13,050	17,628	18,821	49,499
Brookline	1,807	315	496	2,618
Chelsea	657	492	87	1,236
Everett	803	1,546	749	3,098
Lexington	902	881	340	2,123
Lynnfield Water District	79	39	41	160
Malden	1,091	554	344	1,989
Marblehead	570	31	190	791
Medford	1,292	249	1,745	3,286
Melrose	700	89	241	1,030
Milton	621	125	345	1,091
Nahant	109	17	19	145
Newton	2,196	814	1,057	4,067
Norwood	615	590	386	1,591
Quincy	2,068	1,145	1,077	4,290
Revere	857	151	691	1,699
Saugus	600	200	584	1,384
Somerville	1,918	391	1,277	3,586
Stoneham	425	479	406	1,310
Swampscott	438	51	231	720
Waltham	1,431	1,959	819	4,209
Watertown	830	271	627	1,728
Winthrop	518	168	76	762
Fully Supplied Members (25)	35,422	28,602	31,236	95,261
Chicopee	1,422	1,635	722	3,779
Clinton	400	200	102	702
South Hadley Fire District #1	354	416	28	798
Southborough	129	51	10	190
Wilbraham	203	70	36	309
Fully Supplied Nonmembers (5)	2,508	2,372	898	5,778

Town	Domestic	Nondomestic	Unaccounted-For	Total
Cambridge (0.4%)[1]	1,900	3,000	1,414	6,314
Canton (48%)	585	190	333	1,109
Needham (30%)	769	417	141	1,327
Peabody (27%)	1,171	544	1,381	3,096
Wakefield (67%)	672	74	144	889
Wellesley (0)	659	234	223	1,116
Weston (100%)	353	57	7	417
Winchester[2]	620	121	351	1,092
Woburn (19%)	1,068	770	229	2,067
Partially Supplied Members (9)	7,797	5,407	4,223	17,427
Framingham ( )	1,725	981	204[3]	2,910[3]
Leominster (22%)	700	1,232	327	2,259
Marlborough (91%)	831	454	227	1,512
Northborough (10%)	173	53	5	231
Worcester (0)	2,710	4,524	2,161	9,395
Partially Supplied Nonmembers (5)	6,139	7,244	2,924	16,307
Special Users	0	1,118	0	1,118
TOTAL USE ALL MDC USERS	51,866	44,743	39,281	135,891

[1] Percent of municipal supply received from the MDC in 1980.
[2] 1980 use not representative of usage patterns.
[3] Framingham unaccounted-for estimated at 7 percent based on 1977 Metering Report.

Source: Arthur D. Little, Inc.

APPENDIX A-2: USERS LOCATED IN ONE TOWN BUT USING WATER FROM ANOTHER TOWN

Several facilities receive water directly from the MDC and are considered to belong to an artificial "town" of MDC special users. Population and employment for the major users receiving more than 10 MGY in 1980 have been transferred from the towns in which the facilities are located to the special users "town," and population projections adjusted by the same amount.

	Institutional Population	Government Employment
Westboro State Hospital	215	500
Fernald School, Waltham	910	2200
Metropolitan State Hospital, Waltham	400	700
GSA, Waltham (incl. Corps of Engineers & GSA facilities)	0	900
MDC Parks, Boston	0	220
Total, MDC Special Users	1525	4520

Bostik is located in Middleton but supplied by Peabody's water department. Employment of 250 in 1979 and 1980 in SIC 28, manufacturing and private employment, has been shifted from Middleton to Peabody.

Atlantic Gelatin is located in Woburn but is supplied by Stoneham's water department. Employment of 200 in 1979 and 1980 in SIC 20, manufacturing, and private employment has been shifted from Woburn to Stoneham.

The U.S. Air Force Hanscom Field facility buys over 95 percent of its water from the town of Lexington (and the remaining portion from Bedford). The U.S. Census counts persons living in group quarters (institutional population) as part of Bedford and persons living in households (noninstitutional population) as part of Lincoln. Employees are included with Bedford's employment. Population and employment data for 1980 are shifted to Lexington to correspond with water use. Population projections are adjusted to reflect this water use pattern by the amounts shown below.

	Population	Institutional Population	Government Employment
Lincoln	(2500)	0	0
Bedford	(950)	(950)	(4700)
Lexington	3450	950	4700

APPENDIX A-3:
RECONCILIATION OF TOWN
AND WATER DEPARTMENT DATA

TOWNS SERVED BY MORE THAN ONE WATER DEPARTMENT

Chelmsford is served by 4 water departments. Data from these districts has been summed to estimate total town use. The departments served an estimated 87.5 percent of Chelmsford's population plus adjacent parts of Tyngsborough, bringing the current percent served to 89.5 percent.

Lynnfield's two water districts (one of which is currently served by the MDC and one is a potential future user) are treated as if they were two separate towns. Population, housing and employment data are allocated based on the amount of domestic and nondomestic use reported by the two water departments. Each district is fully served (except that in the Lynnfield Center Water District about 30 households have wells, so its service population is 99 percent).

Thirty percent domestic use in the two districts is accounted for by the Lynnfield Water District; consequently 30 percent of population and housing variables are attributed to the Lynnfield Water District and 70 percent to the Lynnfield Center Water District.

The large majority of nondomestic use in the two districts is accounted for by the Lynnfield Water District. All manufacturing employment and 85 percent of private and government employment are attributed to the Lynnfield Water District and the remainder to the Lynnfield Center Water District.

South Hadley's two water departments are also treated as two separate towns, with Fire District #1 in the MDC service area. Fire District #1 serves approximately 70 percent of South Hadley plus about 500 people in adjacent towns. Thus, 70 percent of South Hadley's noninstitutional population and housing data are allocated to Fire District #1, and the percentage served equals 104.5 percent to account for the out-of-town water services. Because Mt. Holyoke College is served by Fire District #2, 95 percent of institutional population is allocated to that district.

Except for Mt. Holyoke, the large majority of nondomestic use is accounted for by Fire District #1. All manufacturing employment and 90 percent of nonmanufacturing employment (after subtracting Mt. Holyoke's estimated employment) is allocated to Fire District #1.

WATER DEPARTMENTS SERVING MORE THAN ONE TOWN

The Dedham/Westwood water department reported that Westwood uses 35 percent of the water. Westwood's share of population (34 percent), manufacturing employment (37 percent), and total employment (29 percent) all fall near 35 percent, so 35 percent of all components (i.e., domestic, nondomestic and unaccounted-for) were allocated to Westwood and 65 percent to Dedham.

The Randolph/Holbrook water department reported that Holbrook used 25 percent of the water and Randolph 75 percent.

Brockton has supplied water in bulk to the towns of Halifax, Hanson and Whitman. Because Whitman is in the planning area, its use has been separated from Brockton's. Water used by Hanson and Halifax is treated as intertown transfers. Brockton also supplies almost 300 customers in adjacent towns; for this reason its percent served is 102 percent.

Water use for the combined Danvers/Middleton system was reported by type of use. Domestic use was allocated by population served (99 percent of Danvers and 50 percent of Middleton, with the rest of Middleton served by wells), nondomestic use by private employment, and unaccounted-for by the ratio of metered (domestic and nondomestic) water. Each town's total use is the sum of the components.

APPENDIX A-4: COMPONENTS OF USE IN MDC SERVED COMMUNITIES

Bechtel Civil and Minerals reported components of use for most MDC-served communities, based on metering reports, revenue data and flow profiles. Additional adjustments and estimates have been made, based on further information.

Arlington reports all metered water as domestic. Nondomestic use was estimated based on an equation (15,000 gal/year/nonmanufacturing employee + 50,000 gal/year/manufacturing employee + major users' use); residual metered use is the estimated domestic.

Brookline reports only the town's estimate of public use as nondomestic use. Nondomestic was re-estimated based on the formula described for Arlington.

Chelsea includes small commercial and institutional users in their reported domestic. Their estimate of domestic was reduced by 84 MGY (15,000 gal/year/private nonmanufacturing employee).

Chicopee's reported domestic included commercial and institutional users. Nondomestic was re-estimated by adding 156 MGY (15,000 gal/year/nonmanufacturing employee) to reported industrial use.

Metered use estimates for Clinton are based on 1980 revenue for metered water, and the nondomestic formula (described under Arlington) for the domestic/nondomestic split.

Everett did not estimate commercial use; nondomestic was re-estimated by adding 130 MGY (15,000 gal/year/nonmanufacturing employee) to reported industrial use of 1416 MGY. The remaining metered water is domestic.

Framingham's report included small commercial users with domestic. Commercial use was estimated at 362 MGY (15,000 gal/year/private nonmanufacturing employee) and 249 MGY; the difference between this estimate and their original estimate of commercial was shifted from domestic to nondomestic (commercial).

For Malden, an estimated 20 MGY of unmetered public use was included in unaccounted-for rather than nondomestic.

Medford's components are as reported in the 1980 Water Services and Metering Report.

Milton's nondomestic is increased to include sales to Canton, treated as an intertown transfer.

For Nahant the split between domestic and nondomestic was re-estimated.

Northborough's total use, as reported by MDC and by the town water department, is 250 MGY.

Quincy's reported domestic estimate apparently includes small commercial users; to account for this 308 MGY was shifted (15,000 gal/year/private nonmanufacturing employee) from domestic to nondomestic. Three MGY of seasonal use were also shifted from nondomestic to domestic.

Saugus use components were estimated by formula since data were unavailable.

For Somerville, the 1980 metering report was used to estimate components, although the only separation of use was by large/small accounts. To account for a large high-rise complex, 33 MGY was shifted from large/nondomestic accounts to small/domestic accounts. Another 336 MGY was shifted from small/domestic to large/nondomestic (based on 50,000 gal per year for minor manufacturing employment plus 15,000 gal per year for minor nonmanufacturing employment) to account for small nondomestic users.

The Waltham metering report apparently underestimates small commercial use. Commercial use is estimated at 430 MGY (15,000 gal/year/private nonmanufacturing employee) and 328 MGY (the difference between this estimate of commercial and the town's estimate of 102 MGY) was shifted from domestic to nondomestic.

Winchester used an unusually large amount of MDC water to fill its reservoir in 1980. 1980 usage reflects this higher figure, but estimates for future years incorporate a baseline estimate of unaccounted-for of 205 MGY, based on 1979 components of use.

Winthrop estimated unaccounted-for water at 15 percent of each category reported on the 1980 water services and metering report.

Cambridge water department reports on metered water for FY80 and FY81 yield an estimate of unaccounted-for of 17 percent. Domestic use was estimated at 1900 MGY and nondomestic was the residual.

Peabody's nondomestic estimate excluded commercial use, which was re-estimated (15,000 gal/year/private nonmanufacturing employee) and 148 MGY was shifted from domestic to nondomestic. Also included is 10 MGY of unmetered water.

Worcester reports only large and small accounts; their nondomestic estimate seems quite high. (This formula yields an estimate of 2500 MGY, compared to their estimate of 5525 MGY.) 1000 MGY was shifted from domestic to nondomestic.

APPENDIX A-5: COMPONENTS OF USE IN POTENTIAL FUTURE USER COMMUNITIES

For communities without allocations to domestic and non-domestic (Billerica, Brockton, and Chelmsford), each was calculated by the estimating equations, and the unexplained (i.e., difference between estimated and actual use) was allocated proportionately to each of the two categories.

For communities with estimates of local supply but without estimates of metered sales (Holbrook, Randolph, Sterling, Ware, and Westborough), estimating equations were used for domestic and nondomestic. Unaccounted-for was calculated as the average of all small (less than 1000 MGY) potential future user communities (20.3 percent of total). Unexplained amounts were then allocated proportionately to the three categories.

Tyngsborough has no central system and therefore no estimate of local supply. Domestic and nondomestic were estimated by equations and unaccounted-for by the average of all small non-MDC communities.

Rutland's estimated nondomestic use was less than use by a major user; 13 MGY was transferred from domestic use to nondomestic use.

APPENDIX A-6: INTERTOWN TRANSFERS AND WACHUSETT WITHDRAWALS

INTERTOWN TRANSFERS

Sales of water from one community to another are common, and intertown sales within the planning area must be subtracted from totals to avoid double-counting demand. The following table lists the intertown transfers and the estimated future values. In general, it is assumed that towns will continue to buy the same amount of water from other communities in the future.

In addition, Chicopee, which is a fully-supplied user in the MDC service area, bought 20 million gallons from Springfield in 1980 to cover peak demand periods. Based on information provided by the water department, an annual purchase of 20 million gallons has been estimated in future years.

WACHUSETT WITHDRAWALS

Worcester has water rights to an area of 20.7 square miles in the Wachusett watershed of 107.69 square miles. Quinapoxet Reservoir is located in this section of the Wachusett watershed. Pine Hill and Kendall together provide approximately two-thirds of Worcester's safe yield from its surface water supplies (measured in terms of watershed area and reservoir capacity).

The MDC considers the Quinapoxet Watershed as part of its system and treats the amount pumped by Worcester from the Quinapoxet as a demand on the MDC system.

In the demand model, demand is calculated for the city of Worcester and subtracted from its reported safe yield of 29 MGD (of which approximately 17.9 MGD is from the Wachusett watershed) to determine its demand, if any, on the MDC system. (Demand by Worcester is projected to remain fairly stable at about 25 MGD, requiring no water from the MDC's Wachusett Reservoir or Quabbin Shaft 3.) However, since withdrawals from the Quinapoxet are considered as demand on the MDC, 6.0 MGD is added back in for Worcester, increasing by 20 percent by 2020 (6.3 in 1990, 6.6 in 2000, and 7.2 in 2020). (The amount has fluctuated from 0 to 9.4 over the last 20 years, but appears to show a moderate increase.)

The towns of Rutland, Holden, Sterling, West Boylston and Boylston also get water from the Wachusett watershed, varying from 2 to 4 MGD over the last decade.

INTERTOWN TRANSFERS

(million gallons per year)

	1980	1990	2000	2020
1. Within MDC service area				
-Milton to Canton	12.7	12.7	12.7	12.7
2. MDC service area to non-MDC planning area	1078.6	940.1	940.1	940.1
- Canton to Stoughton	29.3	29.3	29.3	29.3
- Lexington to Bedford	251.6	251.6	251.6	251.6
- MDC to Lynn (GE)	738.5	600.0[1]	600.0[1]	600.0[1]
- Worcester to Holden	59.2	59.2	59.2	59.2
3. Within non-MDC planning area				
- Billerica to Bedford	71.0	71.0	71.0	71.0
4. MDC service area to areas outside planning area	131.2	150.0	150.0	150.0
- Worcester to Auburn	61.5	65.0	65.0	65.0
- Worcester to Grafton	45.2	55.0	55.0	55.0
- Worcester to Boylston	16.8	20.0	20.0	20.0
- Worcester to other	7.7	10.0	10.0	10.0
5. Non-MDC planning area to areas outside planning area	325.0	20.0	20.0	20.0
- Brockton to Halifax	117.0	0	0	0
- Brockton to Hanson	208.0	20.0[2]	20.0[2]	20.0[2]
TOTAL FROM PLANNING AREA	1618.5	1193.8	1193.8	1193.8

[1] Reduction due to conservation measures being implemented at GE facility in Lynn.

[2] Water department anticipates that new well system, at 1.1 mgd, will make Hanson 90% independent of Brockton.

WATER USE OF ALL SUPPLIES BY CURRENT USERS

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69
62	ARLINGTON	1859	1724	1733	1763	1897	1865	1871	1766	1927	2270
63	BELMONT	881	865	835	901	931	925	860	805	906	900
51	BOSTON	42476	43993	42773	44299	44701	43773	43201	44568	47279	49973
52	BROOKLINE	2082	2235	2286	2330	2496	2329	2384	2364	2606	2738
141	CHELSEA	1369	1366	1436	1533	1476	1436	1404	1443	1568	1361
72	EVERETT	3204	3256	3105	3089	3066	2887	2640	2613	2761	2892
476	LEXINGTON	1036	1158	1291	1429	1480	1395	1485	1452	1552	1752
252	LYNNFIELD WD	76	83	83	87	88	98	140	90	99	117
71	MALDEN	1854	1993	2082	2109	2076	2036	2037	2073	2355	2479
418	MARBLEHEAD	543	525	553	613	671	689	683	677	724	781
81	MEDFORD	2075	2282	2367	2365	2434	2376	2437	2615	2795	3120
73	MELROSE	749	796	740	845	957	953	1054	1076	1033	1124
406	MILTON	733	742	775	840	963	896	897	862	884	971
253	NAHANT	129	126	134	139	144	149	157	159	170	182
91	NEWTON	3942	4178	4136	4043	4104	4173	4251	3890	4168	4219
361	NORWOOD	1100	1104	1153	1130	1280	1226	1285	1340	1413	1542
401	QUINCY	3287	3381	3294	3372	3278	3282	3521	3610	3962	3692
142	REVERE	1315	1166	1130	1201	1311	1337	1272	1248	1366	1419
254	SAUGUS	510	520	549	636	701	685	704	742	834	868
101	SOMERVILLE	3397	3642	3323	3311	3318	3472	3423	3516	3721	3965
495	STONEHAM	772	644	637	722	797	846	914	960	1090	1236
255	SWAMPSCOTT	427	415	417	499	514	509	528	501	623	680
471	WALTHAM	2540	2717	2797	3060	3166	3120	3245	3297	3609	3961
93	WATERTOWN	1659	1776	1754	1747	1763	1768	1775	1679	1737	1757
143	WINTHROP	692	675	673	690	709	682	598	535	604	619

CODE	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
62	2473	2537	2557	2326	1907	1987	1958	1825	1795	1737	1743	1654
63	945	1012	1023	1030	947	1035	1023	1042	1068	1084	1106	1141
51	51714	53125	54628	52552	52918	53702	55040	53328	52214	49973	49499	48270
52	2692	2953	2792	2709	2666	2692	2579	2653	2767	2751	2618	2567
141	1326	1420	1329	1316	1478	1277	1350	1199	1182	1153	1236	1158
72	2924	2813	2786	2904	2795	2823	2846	2739	2959	3094	3098	3078
476	1646	1749	1650	1591	1466	1637	1689	1774	2000	1931	2123	2229
252	115	129	127	122	133	146	154	145	148	154	160	159
71	2525	2676	2666	2737	2761	2526	2451	2542	2369	2235	1989	1921
418	816	850	769	750	836	877	838	848	910	824	791	790
81	2949	3040	3111	3052	2883	3149	3301	3240	3348	3187	3286	3282
73	1096	1044	1071	974	1030	1233	1180	1100	1120	1127	1030	1034
406	925	873	828	832	936	881	1004	1054	1230	1137	1091	1122
253	205	210	209	198	149	153	153	167	149	158	145	145
91	4240	4741	4245	4427	4527	4837	4496	4462	4162	3811	4067	4239
361	1403	1804	1858	1803	1615	1489	1487	1433	1499	1498	1591	1485
401	3738	3863	3842	3756	3655	3984	3839	4103	4208	4283	4290	4140
142	1442	1445	1293	1282	1580	1561	1603	1743	1728	1858	1699	1585
254	1084	1070	1041	1131	851	979	1285	1325	1383	1468	1384	139
101	3913	3969	4028	3975	3881	3346	3299	3186	3449	3453	3586	3375
495	1146	1167	1154	1217	1281	1149	1176	1153	1325	1420	1310	1516
255	596	602	510	535	574	663	641	744	753	761	720	660
471	3937	4131	4042	4288	4207	4080	4080	4170	4222	4185	4209	3986
93	1743	1747	1663	1770	1647	1758	1837	1845	1790	1656	1728	1574
143	660	665	670	702	669	729	766	833	826	763	762	759

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69
.	XXXXXXXSUBTOTAL	78707	81362	80056	82753	84321	82907	82766	83881	89786	94618

CODE	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
.	96253	99635	99892	97979	97392	98693	100075	98653	98604	95701	95261	92008

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
435	CHICOPEE	2761	2936	3296	3667	4065	4159	4357	4518	4852	4641	4144	4188	4468	4413	4251	3856	3814	4040	4045	4078	3799	.
166	CLINTON	600	633	772	600	639	724	676	698	745	773	861	921	1150	815	810	760	799	846	833	672	702	744
223	SO HADLEY FD1	311	344	357	383	412	486	516	512	553	582	607	589	587	638	615	596	675	694	683	754	798	768
272	SOUTHBOROUGH	.	.	.	.	126	129	134	136	164	143	149	152	153	158	170	172	174	194	165	172	190	192
455	WILBRAHAM	124	125	163	151	186	205	204	202	225	238	273	290	289	314	290	307	292	293	289	311	309	310
.	XXXXXXXSUBTOTAL	3796	4038	4588	4801	5428	5703	5887	6066	6539	6377	6034	6140	6647	6338	6136	5691	5754	6067	6015	5987	5798	2014

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69
61	CAMBRIDGE	6933	7197	7299	7425	7854	8275	7587	7792	8080	8458
362	CANTON	455	499	532	621	673	631	694	659	771	829
92	NEEDHAM	936	896	995	1116	1189	1138	1170	1121	1229	1232
420	PEABODY	.	.	1793	2095	2073	2328	2463	2346	2507	2498
74	WAKEFIELD	941	874	868	831	838	921	908	888	1021	1105
94	WELLESLEY	960	989	1048	1146	1135	1132	1124	1018	1197	1212
479	WESTON	260	252	253	393	375	357	348	332	391	429
497	WINCHESTER	659	615	749	714	766	740	685	689	754	806
491	WOBURN	1304	1400	1476	1496	1636	1560	1588	.	1920	1926
.	XXXXXXXSUBTOTAL	12448	12722	15013	15837	16539	17082	16567	14845	17870	18495

CODE	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
61	8246	8339	8179	8125	7702	7783	7142	7019	6776	6710	6291	6259
362	911	717	630	723	817	1057	1121	1169	971	1051	1108	1141
92	1259	1344	1178	1176	1207	1285	1270	1229	1229	1206	1327	1326
420	2187	2193	2171	2278	1952	.	2407	2207	2182	2175	3096	3764
74	1206	1197	1200	1286	1269	1239	1139	1102	952	885	890	897
94	1232	1256	1116	1174	1161	1095	1131	1061	1128	1117	1116	.
479	409	476	397	442	430	426	426	401	407	380	417	436
497	776	791	692	746	873	885	885	865	949	946	1092	924
491	1868	1792	1748	1823	1871	1982	2064	2018	2122	2392	2452	2180
.	18094	18105	17311	17773	17282	15752	17585	17071	16716	16862	17789	16927

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69
265	FRAMINGHAM	1903	2104	2218	2281	2529	2463	2763	2640	2747	2792
172	LEOMINSTER	2831	.	.	.	.	.	.	.	.	.
261	MARLBOROUGH	397	479	535	612	616	822	806	797	880	1075
269	NORTHBOROUGH	.	.	.	.	.	.	193	236	179	172
501	WORCESTER	8569	8883	8924	8914	9465	10318	10444	9212	9239	9564
.	XXXXXXXSUBTOTAL	13700	11466	11677	11807	12610	13603	14206	12885	13045	13603

CODE	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
265	2610	3016	2807	3069	2953	2962	3381	3232	3184	3193	3153	2644
172	2824	.	.	.	.	.	.	1993	2928	2804	2259	1752
261	1160	1327	1235	1247	1269	1331	1344	1337	1433	1451	1508	1518
269	202	222	232	250	242	247	258	244	218	245	250	233
501	9588	9601	9343	9608	10071	9824	9911	10073	9559	9436	9395	.
.	16384	14166	13617	14174	14535	14364	14894	16879	17322	17129	16565	6147

GROUP=SPECIAL MDC USERS

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
521	SPECIAL MDC	812	856	750	734	640	660	706	761	706	933	1959	1334	1454	1344	1321	689	713	635	737	1220	1119	1035
.	XXXXXXXSUBTOTAL	812	856	750	734	640	660	706	761	706	933	1959	1334	1454	1344	1321	689	713	635	737	1220	1119	1035

GROUP=TOTAL

CODE	NAME	TOTSUP60	TOTSUP61	TOTSUP62	TOTSUP63	TOTSUP64	TOTSUP65	TOTSUP66	TOTSUP67	TOTSUP68	TOTSUP69
.	XXXXXXXXXXTOTAL	109463	110444	112084	115932	119538	119955	120132	118438	127946	134026

CODE	TOTSUP70	TOTSUP71	TOTSUP72	TOTSUP73	TOTSUP74	TOTSUP75	TOTSUP76	TOTSUP77	TOTSUP78	TOTSUP79	TOTSUP80	TOTSUP81
.	138724	139380	138921	137608	136666	135189	139021	139305	139394	136899	136532	118131

OTE: INCLUDES PURCHASES BY CHICOPEE FROM SPRINGFIELD IN 1979 AND 1980;
ATA ON OTHER YEARS WAS NOT AVAILABLE.

WATER USE OF POTENTIAL FUTURE USERS

CODE	NAME	LOCSUP60	LOCSUP61	LOCSUP62	LOCSUP63	LOCSUP64	LOCSUP65	LOCSUP66	LOCSUP67	LOCSUP68	LOCSUP69	LOCSUP70	LOCSUP71	LOCSUP72	LOCSUP73	LOCSUP74	LOCSUP75	LOCSUP76	LOCSUP77	LOCSUP78	LOCSUP79	LOCSUP80
472	ACTON	168	.	.	.	.	.	.	.	.	.	396	.	399	425	486	489	509	561	514	506	527
342	AMHERST	492	.	.	.	.	.	.	.	.	.	1040	.	1119	1138	1148	.	1004	.	1998	1156	1190
262	ASHLAND	406	.	.	.	.	.	.	.	.	.	485	.	425	422	.	.	484	517	458	.	426
1	ATHOL	365	.	.	.	.	.	.	.	.	.	376	.	.	.	369	385	451	.	460	447	420
113	AVON	.	.	.	.	.	.	.	.	.	.	146	.	.	.	.	.	.	.	.	.	146
473	BEDFORD	295	.	.	.	.	.	.	.	.	.	578	598	609	582	578	618	599	562	.	.	574
242	BILLERICA	367	.	.	.	.	.	.	.	.	.	975	1087	1069	1204	1300	1267	1385	.	.	.	1336
402	BRAINTREE	883	.	.	.	.	.	.	.	.	.	1456	.	1462	1499	1557	1657	1681	1784	1711	.	1576
111	BROCKTON	.	.	.	.	.	.	.	.	.	.	4251	4052	4260	4555	4663	4996	5284	5201	4748	.	5088
243	CHELMSFORD	.	.	.	.	.	.	.	.	.	.	1134	.	.	.	.	.	.	.	.	.	1782
413	DANVERS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	985
363	DEDHAM	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1036
118	EASTON	281	.	.	.	.	.	.	.	.	.	381	415	430	454	495	523	491	501	496	.	582
161	FITCHBURG	3357	.	.	.	.	.	.	.	.	.	2972	.	.	.	2835	2550	2540	2470	2482	2620	2833
123	HOLBROOK	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	325
507	HOLDEN	192	.	.	.	.	.	.	.	.	.	381	.	349	.	405	422	464	488	513	501	529
287	HOPKINTON	86	.	.	.	.	.	.	.	.	.	152	.	145	.	.	.	189	181	196	206	209
266	HUDSON	299	.	.	.	.	.	.	.	.	.	.	.	419	599	635	679	708	658	646	.	802
170	LANCASTER	134	.	.	.	.	.	.	.	.	.	214	.	202	178	158	189	199	201	169	194	200
251	LYNN	.	.	.	.	.	.	.	.	.	.	5362	.	.	.	.	.	.	.	.	.	5673
522	LYNNFIELD CWD	.	.	.	.	.	.	.	.	.	.	167	.	.	.	.	.	.	.	.	.	213
419	MIDDLETON	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	123
268	NATICK	1595	.	.	.	.	.	.	.	.	.	.	.	1673	1625	.	.	1504	1513	1564	.	1629
234	NORTH ANDOVER	486	.	.	.	.	.	.	.	.	.	685	680	678	743	775	726	780	820	.	.	858
493	NORTH READING	.	.	.	.	.	.	.	.	.	.	.	321	293	230	198	231	221	205	292	.	359
514	PAXTON	30	.	.	.	.	.	.	.	.	.	74	.	87	.	69	.	76	65	68	70	81
130	RANDOLPH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	956
515	RUTLAND	.	.	.	.	.	.	.	.	.	.	81	.	.	.	.	.	.	.	.	.	89
177	STERLING	35	.	.	.	.	.	.	.	.	.	70	.	70	.	83	102	89	.	122	134	155
133	STOUGHTON	523	.	.	.	.	.	.	.	.	.	732	766	754	762	796	798	.	793	850	.	878
248	TYNGSBOROUGH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	198
450	WARE	.	.	.	.	.	.	.	.	.	.	349	.	332	322	314	335	335	.	336	335	337
518	WESTBOROUGH	.	.	.	.	.	.	.	.	.	.	396	.	.	622	574	502	536	610	.	680	741
370	WESTWOOD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	558
135	WHITMAN	.	.	.	.	.	.	.	.	.	.	252	.	284	299	305	302	.	.	270	.	291
496	WILMINGTON	519	.	.	.	.	.	.	.	.	.	943	924	907	958	934	966	1008	1037	1073	.	1043
.	XXXXXXXXXXTOTAL	10513	.	.	.	.	.	.	.	.	.	24048	8843	15966	16617	18677	17737	20537	18167	18966	6849	34748

********** ESTIMATED CHARGE FOR PRINTING 267 LINES IS $.45

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69
62	ARLINGTON	1859	1724	1733	1763	1897	1865	1871	1766	1927	2270
63	BELMONT	881	865	835	901	931	925	860	805	906	900
51	BOSTON	42476	43993	42773	44299	44701	43773	43201	44568	47279	49973
52	BROOKLINE	2082	2235	2286	2330	2496	2329	2384	2364	2606	2738
141	CHELSEA	1369	1366	1436	1533	1476	1436	1404	1443	1568	1361
72	EVERETT	3204	3256	3105	3089	3066	2887	2640	2613	2761	2892
476	LEXINGTON	1036	1158	1291	1429	1480	1395	1485	1452	1552	1752
252	LYNNFIELD WD	76	83	83	87	88	98	140	90	99	117
71	MALDEN	1854	1993	2082	2109	2076	2036	2037	2073	2355	2479
418	MARBLEHEAD	543	525	553	613	671	689	683	677	724	781
81	MEDFORD	2075	2282	2367	2365	2434	2376	2437	2615	2795	3120
73	MELROSE	749	796	740	845	957	953	1054	1076	1033	1124
406	MILTON	733	742	775	840	963	896	897	862	884	971
253	NAHANT	129	126	134	139	144	149	157	159	170	182
91	NEWTON	3942	4178	4136	4043	4104	4173	4251	3890	4168	4219
361	NORWOOD	1100	1104	1153	1130	1280	1226	1285	1340	1413	1542
401	QUINCY	3287	3381	3294	3372	3278	3282	3521	3610	3962	3692
142	REVERE	1315	1166	1130	1201	1311	1337	1272	1248	1366	1419
254	SAUGUS	510	520	549	636	701	685	704	742	834	868
101	SOMERVILLE	3397	3642	3323	3311	3318	3472	3423	3516	3721	3965
495	STONEHAM	772	644	637	722	797	846	914	960	1090	1236
255	SWAMPSCOTT	427	415	417	499	514	509	528	501	623	680
471	WALTHAM	2540	2717	2797	3060	3166	3120	3245	3297	3609	3961
93	WATERTOWN	1659	1776	1754	1747	1763	1768	1775	1679	1737	1757
143	WINTHROP	692	675	673	690	709	682	598	535	604	619

CODE	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
62	2473	2537	2557	2326	1907	1987	1958	1825	1795	1737	1743	1654
63	945	1012	1023	1030	947	1035	1023	1042	1068	1084	1106	1141
51	51714	53125	54628	52552	52918	53702	55040	53328	52214	49973	49499	48270
52	2692	2953	2792	2709	2666	2692	2579	2653	2767	2751	2618	2567
141	1326	1420	1329	1316	1478	1277	1350	1199	1182	1153	1236	1158
72	2924	2813	2786	2904	2795	2823	2846	2739	2959	3094	3098	3078
476	1646	1749	1650	1591	1466	1637	1689	1774	2000	1931	2123	2229
252	115	129	127	122	133	146	154	145	148	154	160	159
71	2525	2676	2666	2737	2761	2526	2451	2542	2369	2235	1989	1921
418	816	850	769	750	836	877	838	848	910	824	791	790
81	2949	3040	3111	3052	2883	3149	3301	3240	3348	3187	3286	3282
73	1096	1044	1071	974	1030	1233	1180	1100	1120	1127	1030	1034
406	925	873	828	832	936	881	1004	1054	1230	1137	1091	1122
253	205	210	209	198	149	153	153	167	149	158	145	145
91	4240	4741	4245	4427	4527	4837	4496	4462	4162	3811	4067	4239
361	1403	1804	1858	1803	1615	1489	1487	1433	1499	1498	1591	1485
401	3738	3863	3842	3756	3655	3984	3839	4103	4208	4283	4290	4140
142	1442	1445	1293	1282	1580	1561	1603	1743	1728	1858	1699	1585
254	1084	1070	1041	1131	851	979	1285	1325	1383	1468	1384	139
101	3913	3969	4028	3975	3881	3346	3299	3186	3449	3453	3586	3375
495	1146	1167	1154	1217	1281	1149	1176	1153	1325	1420	1310	1516
255	596	602	510	535	574	663	641	744	753	761	720	660
471	3937	4131	4042	4288	4207	4080	4080	4170	4222	4185	4209	3986
93	1743	1747	1663	1770	1647	1758	1837	1845	1790	1656	1728	1574
143	660	665	670	702	669	729	766	833	826	763	762	759

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69
.	XXXXXXXSUBTOTAL	78707	81362	80056	82753	84321	82907	82766	83881	89786	94618

CODE	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
.	96253	99635	99892	97979	97392	98693	100075	98653	98604	95701	95261	92008

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
435	CHICOPEE	2761	2936	3296	3667	4065	4159	4357	4518	4852	4641	4144	4188	4468	4413	4251	3856	3814	4040	4045	4066	3779	3713
166	CLINTON	600	633	772	600	639	724	676	698	745	773	861	921	1150	815	810	760	799	846	833	672	702	744
223	SO HADLEY FD1	311	344	357	383	412	486	516	512	553	582	607	589	587	638	615	596	675	694	683	754	798	768
272	SOUTHBOROUGH	0	0	0	0	126	129	134	136	164	143	149	152	153	158	170	172	174	194	165	172	190	192
455	WILBRAHAM	124	125	163	151	186	205	204	202	225	238	273	290	289	314	290	307	292	293	289	311	309	310
.	XXXXXXXSUBTOTAL	3796	4038	4588	4801	5428	5703	5887	6066	6539	6377	6034	6140	6647	6338	6136	5691	5754	6067	6015	5975	5778	5727

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
61	CAMBRIDGE	19	33	18	255	218	2009	3202	564	503	1218	357	390	364	251	150	417	191	25	0	0	26	0
362	CANTON	0	0	0	0	0	0	0	0	0	0	322	446	569	585	426	223	264	275	356	443	531	788
92	NEEDHAM	280	270	298	339	375	350	351	344	375	461	379	427	298	336	339	367	367	357	364	399	395	407
420	PEABODY	51	39	89	291	289	593	843	522	467	455	214	381	296	287	262	425	567	102	281	180	850	1455
74	WAKEFIELD	358	250	355	287	317	593	645	563	552	771	1005	911	799	873	879	865	859	845	711	587	600	773
94	WELLESLEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
479	WESTON	0	0	0	0	0	3	115	112	132	143	262	240	296	442	430	426	426	401	407	380	417	436
497	WINCHESTER	198	290	294	239	366	547	487	232	353	449	257	464	238	265	292	397	319	480	412	327	1109	785
491	WOBURN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	385	436
.	XXXXXXXSUBTOTAL	906	882	1054	1411	1565	4095	5643	2337	2382	3497	2796	3259	2860	3039	2778	3120	2993	2485	2531	2503	4313	5080

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
265	FRAMINGHAM	1744	1909	1925	2035	2006	1880	2063	1946	2141	2521	2609	3014	2805	3067	2940	2871	2974	3081	3080	3028	3075	2654
172	LEOMINSTER	0	0	0	0	0	135	526	0	163	411	349	282	154	369	470	79	276	185	412	297	490	413
261	MARLBOROUGH	0	85	169	299	342	408	450	378	420	667	593	733	872	953	1003	898	896	1162	1146	1211	1379	1276
269	NORTHBOROUGH	4	6	8	27	42	23	20	58	11	20	42	6	10	1	3	19	12	5	7	10	24	13
501	WORCESTER	0	0	0	0	382	1744	1401	238	0	0	0	0	0	0	0	0	0	241	0	0	0	0
.	XXXXXXXSUBTOTAL	1748	2000	2102	2361	2772	4190	4460	2620	2735	3619	3593	4035	3841	4390	4416	3867	4158	4674	4645	4546	4968	4356

GROUP=SPECIAL MDC USERS

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
521	SPECIAL MDC	~~932~~	856	750	734	640	660	706	761	706	933	1959	1334	1454	1344	1321	689	713	635	737	1220	1119	1035
.	XXXXXXXSUBTOTAL	~~932~~	856	750	734	640	660	706	761	706	933	1959	1334	1454	1344	1321	689	713	635	737	1220	1119	1035

GROUP=TOTAL

CODE	NAME	MDCSUP60	MDCSUP61	MDCSUP62	MDCSUP63	MDCSUP64	MDCSUP65	MDCSUP66	MDCSUP67	MDCSUP68	MDCSUP69
.	XXXXXXXXXXTOTAL	85~~909~~	89~~178~~	885~~50~~	920~~60~~	947~~26~~	975~~55~~	994~~65~~	956~~65~~	102~~148~~	109~~044~~
	MGD	234.943	244.268	242.655	252.277	258.872	267.332	272.567	262.170	279.158	298.841

CODE	MDCSUP70	MDCSUP71	MDCSUP72	MDCSUP73	MDCSUP74	MDCSUP75	MDCSUP76	MDCSUP77	MDCSUP78	MDCSUP79	MDCSUP80	MDCSUP81
.	110~~635~~	114~~403~~	114~~694~~	113~~090~~	112~~043~~	112~~060~~	113~~693~~	112~~514~~	112532	109945	111439	108206
	303.367	313.627	313.530	309.992	307.110	307.252	310.893	308.573	308.307	301.219	304.478	296.455

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	LOCSUP60	LOCSUP61	LOCSUP62	LOCSUP63	LOCSUP64	LOCSUP65	LOCSUP66	LOCSUP67	LOCSUP68	LOCSUP69
61	CAMBRIDGE	6914	7164	7281	7170	7636	6266	4385	7228	7577	7240
362	CANTON	455	499	532	621	673	631	694	659	771	829
92	NEEDHAM	656	626	697	777	814	788	819	777	854	771
420	PEABODY	.	.	1704	1804	1784	1735	1620	1824	2040	2043
74	WAKEFIELD	583	624	513	544	521	328	263	325	469	334
94	WELLESLEY	960	989	1048	1146	1135	1132	1124	1018	1197	1212
479	WESTON	260	252	253	393	375	354	233	220	259	286
497	WINCHESTER	461	325	455	475	400	193	198	457	401	357
491	WOBURN	1304	1400	1476	1496	1636	1560	1588	.	1920	1926
.	XXXXXXXSUBTOTAL	11593	11879	13959	14426	14974	12987	10924	12508	15488	14998

CODE	LOCSUP70	LOCSUP71	LOCSUP72	LOCSUP73	LOCSUP74	LOCSUP75	LOCSUP76	LOCSUP77	LOCSUP78	LOCSUP79	LOCSUP80	LOCSUP81
61	7889	7949	7815	7874	7552	7366	6951	6994	6776	6710	6265	6259
362	589	271	61	138	391	834	857	894	615	608	577	353
92	880	917	880	840	868	918	903	872	865	807	932	919
420	1973	1812	1875	1991	1690	.	1840	2105	1901	1995	2246	2309
74	201	286	401	413	390	374	280	257	241	298	290	124
94	1232	1256	1116	1174	1161	1095	1131	1061	1128	1117	1116	.
479	147	236	101	0	0	0	0	0	0	0	0	0
497	519	327	454	481	581	488	566	385	537	619	-17	139
491	1868	1792	1748	1823	1871	1982	2064	2018	2122	2205	2067	1744
.	15298	14846	14451	14734	14504	13057	14592	14586	14185	14359	13476	11847

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	LOCSUP60	LOCSUP61	LOCSUP62	LOCSUP63	LOCSUP64	LOCSUP65	LOCSUP66	LOCSUP67	LOCSUP68	LOCSUP69
265	FRAMINGHAM	159	195	293	246	523	583	700	694	606	271
172	LEOMINSTER	2831	.	.	.	.	.	.	.	.	.
261	MARLBOROUGH	397	394	366	313	274	414	356	419	460	408
269	NORTHBOROUGH	.	.	.	.	.	.	173	178	168	152
501	WORCESTER	8569	8883	8924	8914	9083	8574	9043	8974	9239	9564
.	XXXXXXXSUBTOTAL	11956	9472	9583	9473	9880	9571	10272	10265	10473	10395

CODE	LOCSUP70	LOCSUP71	LOCSUP72	LOCSUP73	LOCSUP74	LOCSUP75	LOCSUP76	LOCSUP77	LOCSUP78	LOCSUP79	LOCSUP80	LOCSUP81
265	1	2	2	2	13	91	407	151	104	165	78	-10
172	2475	.	.	.	.	.	.	1808	2516	2507	1769	1339
261	567	594	363	294	266	433	448	175	287	240	129	242
269	160	216	222	249	239	228	246	239	211	235	226	220
501	9588	9601	9343	9608	10071	9824	9911	9832	9559	9436	9395	.
.	12791	10413	9930	10153	10589	10576	11012	12205	12677	12583	11597	1791

GROUP=SPECIAL MDC USERS

CODE	NAME	LOCSUP60	LOCSUP61	LOCSUP62	LOCSUP63	LOCSUP64	LOCSUP65	LOCSUP66	LOCSUP67	LOCSUP68	LOCSUP69	LOCSUP70	LOCSUP71	LOCSUP72	LOCSUP73	LOCSUP74	LOCSUP75	LOCSUP76	LOCSUP77	LOCSUP78	LOCSUP79	LOCSUP80	LOCSUP81

GROUP=TOTAL

CODE	NAME	LOCSUP60	LOCSUP61	LOCSUP62	LOCSUP63	LOCSUP64	LOCSUP65	LOCSUP66	LOCSUP67	LOCSUP68	LOCSUP69
.	XXXXXXXXXXTOTAL	23549	21351	23542	23899	24854	22558	21196	22773	25961	25393

CODE	LOCSUP70	LOCSUP71	LOCSUP72	LOCSUP73	LOCSUP74	LOCSUP75	LOCSUP76	LOCSUP77	LOCSUP78	LOCSUP79	LOCSUP80	LOCSUP81
.	28089	25259	24381	24887	25093	23633	25604	26791	26862	26954	25093	13638

APPENDIX B - SUMMARY WATER DEMAND PROJECTIONS BY COMMUNITY

B-1.1 Water Demand Forecasts for Current Users
MDCDDXX = Daily demand on MDC in year XX

B-1.2 Water Demand for Potential Future Users
DEFXX = Deficit (excess of demand over safe yield of local supply) in year XX

B-2.1 Components of Water Demand for Current Users (by year for 1980, 1990, 2000, and 2020)
DOMXX = Domestic demand
NDOMXX = Nondomestic demand
UAFXX = Unaccounted-for use
DEMXX = Total demand
DDEMXX = Total daily demand

B-2.2 Components of Water Demand for Potential Future Users (by year for 1980, 1990, 2000, and 2020)

B-3.1 Daily Domestic, Nondomestic, Unaccounted-For and Total Demand for Current Users
DDOMXX = Daily domestic demand
NDOMXX = Daily nondomestic demand
DUAFXX = Daily unaccounted-for use with leakage recovery
DPUAFXX = Daily unaccounted-for use without leakage recovery

B-3.2 Daily Demand for Potential Future Users

WATER DEMAND FORECASTS UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 1

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
62	ARLINGTON	4.76	4.33	4.31	4.57
63	BELMONT	3.02	2.95	3.02	3.19
51	BOSTON	135.24	125.82	125.80	133.06
52	BROOKLINE	7.15	6.64	6.49	6.69
141	CHELSEA	3.38	3.26	3.41	3.85
72	EVERETT	8.47	8.39	8.87	10.46
476	LEXINGTON	5.80	5.69	5.95	6.52
252	LYNNFIELD WD	0.44	0.46	0.47	0.51
71	MALDEN	5.43	5.10	5.24	5.88
418	MARBLEHEAD	2.16	2.14	2.15	2.27
81	MEDFORD	8.98	8.43	8.52	9.39
73	MELROSE	2.81	2.73	2.70	2.91
406	MILTON	2.98	2.94	2.92	3.04
253	NAHANT	0.40	0.39	0.38	0.40
91	NEWTON	11.11	10.77	11.03	11.91
361	NORWOOD	4.35	4.81	5.48	6.59
401	QUINCY	11.72	11.37	11.39	12.45
142	REVERE	4.64	4.30	4.29	4.57
254	SAUGUS	3.78	3.68	3.76	4.68
101	SOMERVILLE	9.80	9.28	9.11	9.50
495	STONEHAM	3.58	3.74	3.87	4.03
255	SWAMPSCOTT	1.97	1.94	1.93	2.03
471	WALTHAM	11.50	11.88	12.78	15.45
93	WATERTOWN	4.72	4.51	4.85	5.73
143	WINTHROP	2.08	2.00	2.00	2.11
599	XXXXXXXSUBTOTAL	260.28	247.55	250.71	271.78

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
435	CHICOPEE	10.33	10.59	11.37	13.23
166	CLINTON	1.92	2.00	2.12	2.38
223	SO. HADLEY FD1	2.18	2.34	2.54	2.94
272	SOUTHBOROUGH	0.52	0.62	0.74	1.02
455	WILBRAHAM	0.84	0.88	0.91	0.96
599	XXXXXXXSUBTOTAL	15.79	16.44	17.69	20.52

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
61	CAMBRIDGE	0.07	0.00	0.00	1.79
362	CANTON	1.45	1.62	1.87	2.31
92	NEEDHAM	1.08	1.17	1.33	1.63
420	PEABODY	2.33	2.33	2.57	3.40
74	WAKEFIELD	1.64	1.83	1.88	2.12
94	WELLESLEY	0.00	0.00	0.00	0.00
479	WESTON	1.14	1.12	1.14	1.25
497	WINCHESTER	3.04	1.78	1.84	2.02
491	WOBURN	1.06	2.51	3.19	4.63

WATER DEMAND FORECASTS UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 2

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
599	XXXXXXXSUBTOTAL	11.82	12.37	13.81	19.14

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
265	FRAMINGHAM	8.42	8.54	8.85	9.48
172	LEOMINSTER	1.34	1.00	1.00	1.00
261	MARLBOROUGH	3.78	4.02	4.49	5.38
269	NORTHBOROUGH	0.06	0.14	0.22	0.40
501	WORCESTER	0.00	0.00	0.00	0.00
599	XXXXXXXSUBTOTAL	13.61	13.70	14.56	16.26

GROUP=OTHER MDC WATER USES

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
551	MILTON-CANTON	0.00	0.00	0.00	0.00
521	SPECIAL MDC	3.06	2.68	2.68	2.71
523	SYSTEM USES	30.08	21.00	21.00	21.00
549	WACH-QPXT(WORC)	6.00	6.30	6.60	7.20
550	WACHUSETT-OTHER	2.51	2.64	2.76	3.01
599	XXXXXXXSUBTOTAL	41.65	32.62	33.04	33.92

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	MDCDD80	MDCDD90	MDCDD00	MDCDD20
599	XXXXXXXXXXTOTAL	343.14	322.67	329.81	361.63

WATER DEMAND FORECASTS UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 1

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DEF80	DEF90	DEF00	DEF20
472	ACTON	0.00	0.00	0.00	0.06
342	AMHERST	0.00	0.00	0.00	0.00
262	ASHLAND	0.00	0.00	0.00	0.00
1	ATHOL	0.00	0.00	0.00	0.16
113	AVON	0.00	0.00	0.00	0.00
473	BEDFORD	0.00	0.00	0.00	0.14
242	BILLERICA	0.00	0.00	0.00	0.00
553	BILLERICA-BEDFD	0.00	0.00	0.00	0.00
402	BRAINTREE	0.00	0.00	0.00	0.00
111	BROCKTON	3.40	2.22	2.38	2.64
243	CHELMSFORD	0.00	0.00	0.00	0.00
413	DANVERS	0.00	0.00	0.00	0.08
363	DEDHAM	0.00	0.00	0.00	0.00
118	EASTON	0.00	0.00	0.00	0.00
161	FITCHBURG	0.00	0.00	0.00	0.00
123	HOLBROOK	0.00	0.00	0.00	0.00
507	HOLDEN	0.00	0.00	0.00	0.00
287	HOPKINTON	0.00	0.00	0.00	0.00
266	HUDSON	0.00	0.00	0.00	0.01
170	LANCASTER	0.00	0.00	0.00	0.00
251	LYNN	0.98	0.00	0.48	2.74
522	LYNNFIELD CWD	0.00	0.00	0.00	0.00
419	MIDDLETON	0.00	0.00	0.07	0.61
268	NATICK	0.00	0.00	0.00	0.00
234	NORTH ANDOVER	0.00	0.00	0.00	0.00
493	NORTH READING	0.00	0.00	0.00	0.00
514	PAXTON	0.00	0.00	0.00	0.00
130	RANDOLPH	0.00	0.00	0.00	0.00
515	RUTLAND	0.01	0.02	0.04	0.10
177	STERLING	0.00	0.00	0.00	0.00
133	STOUGHTON	0.42	0.51	0.64	0.89
248	TYNGSBOROUGH	0.54	0.66	0.75	0.93
450	WARE	0.00	0.00	0.00	0.00
518	WESTBOROUGH	0.00	0.00	0.00	0.00
370	WESTWOOD	0.00	0.00	0.00	0.00
135	WHITMAN	0.80	0.81	0.87	1.04
496	WILMINGTON	0.00	0.00	0.00	0.24
552	XFROM MDC USERS	0.00	0.00	0.00	0.00
599	XXXXXXXXXXTOTAL	6.15	4.22	5.23	9.66

COMPONENTS OF WATER DEMAND IN 1980 UNDER MODERATE GROWTH SCENARIO (MILLIONS OF GALLONS/MILLION GALLONS PER DAY) 3

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
62	ARLINGTON	1,164	143	436	1,743	4.76	4.76
63	BELMONT	681	274	151	1,106	3.02	3.02
51	BOSTON	13,050	17,628	18,821	49,499	135.24	135.24
52	BROOKLINE	1,807	315	496	2,618	7.15	7.15
141	CHELSEA	657	492	87	1,236	3.38	3.38
72	EVERETT	803	1,546	749	3,098	8.47	8.47
476	LEXINGTON	902	881	340	2,123	5.80	5.80
252	LYNNFIELD WD	79	39	42	160	0.44	0.44
71	MALDEN	1,091	554	344	1,989	5.43	5.43
418	MARBLEHEAD	570	31	190	791	2.16	2.16
81	MEDFORD	1,292	249	1,745	3,286	8.98	8.98
73	MELROSE	700	89	241	1,030	2.81	2.81
406	MILTON	621	125	345	1,091	2.98	2.98
253	NAHANT	109	17	19	145	0.40	0.40
91	NEWTON	2,196	814	1,057	4,067	11.11	11.11
361	NORWOOD	615	590	386	1,591	4.35	4.35
401	QUINCY	2,068	1,145	1,077	4,290	11.72	11.72
142	REVERE	857	151	691	1,699	4.64	4.64
254	SAUGUS	600	200	584	1,384	3.78	3.78
101	SOMERVILLE	2,414	635	537	3,586	9.80	9.80
495	STONEHAM	425	479	406	1,310	3.58	3.58
255	SWAMPSCOTT	438	51	231	720	1.97	1.97
471	WALTHAM	1,431	1,959	819	4,209	11.50	11.50
93	WATERTOWN	830	271	627	1,728	4.72	4.72
143	WINTHROP	518	130	114	762	2.08	2.08
599	XXXXXXXSUBTOTAL	35,918	28,808	30,535	95,261	260.28	260.28

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
435	CHICOPEE	1,422	1,635	742	3,799	10.38	10.33
166	CLINTON	386	200	116	702	1.92	1.92
223	SO. HADLEY FD1	354	416	28	798	2.18	2.18
272	SOUTHBOROUGH	129	51	10	190	0.52	0.52
455	WILBRAHAM	203	70	36	309	0.84	0.84
599	XXXXXXXSUBTOTAL	2,494	2,372	932	5,798	15.84	15.79

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
61	CAMBRIDGE	1,900	3,322	1,069	6,291	17.19	0.07
362	CANTON	585	190	334	1,109	3.03	1.45
92	NEEDHAM	769	417	141	1,327	3.63	1.08
420	PEABODY	1,171	544	1,381	3,096	8.46	2.33
74	WAKEFIELD	672	74	144	890	2.43	1.64
94	WELLESLEY	659	234	223	1,116	3.05	0.00
479	WESTON	353	57	7	417	1.14	1.14
497	WINCHESTER	620	121	351	1,092	2.98	3.04
491	WOBURN	1,068	770	614	2,452	6.70	1.06

COMPONENTS OF WATER DEMAND IN 1980 UNDER MODERATE GROWTH SCENARIO (MILLIONS OF GALLONS/MILLION GALLONS PER DAY) 4

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
599	XXXXXXXSUBTOTAL	7,797	5,729	4,264	17,790	48.61	11.82

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
265	FRAMINGHAM	1,725	981	447	3,153	8.61	8.42
172	LEOMINSTER	700	1,232	327	2,259	6.17	1.34
261	MARLBOROUGH	831	454	223	1,508	4.12	3.78
269	NORTHBOROUGH	.173	53	24	250	0.68	0.06
501	WORCESTER	2,710	4,524	2,161	9,395	25.67	0.00
599	XXXXXXXSUBTOTAL	6,139	7,244	3,182	16,565	45.26	13.61

GROUP=OTHER MDC WATER USES

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
551	MILTON-CANTON	0	-13	0	-13	-0.03	0.00
521	SPECIAL MDC	0	1,119	0	1,119	3.06	3.06
523	SYSTEM USES	0	0	11,009	11,009	30.08	30.08
549	WACH-QPXT(WORC)	0	0	0	0	0.00	6.00
550	WACHUSETT-OTHER	0	919	0	919	2.51	2.51
599	XXXXXXXSUBTOTAL	0	2,025	11,009	13,034	35.61	41.65

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	MDCDD80
599	XXXXXXXXXXTOTAL	52,348	46,178	49,922	148,449	405.60	343.14

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

.COMPONENTS OF WATER DEMAND IN 1990 UNDER MODERATE GROWTH SCENARIO . (MILLIONS OF GALLONS/MILLION GALLONS PER DAY) 5

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
62	ARLINGTON	1,088	153	338	1,579	4.33	4.33
63	BELMONT	671	302	105	1,078	2.95	2.95
51	BOSTON	12,260	18,402	15,264	45,926	125.82	125.82
52	BROOKLINE	1,700	331	391	2,422	6.64	6.64
141	CHELSEA	581	565	45	1,192	3.26	3.26
72	EVERETT	740	1,662	660	3,062	8.39	8.39
476	LEXINGTON	832	973	272	2,077	5.69	5.69
252	LYNNFIELD WD	83	44	40	167	0.46	0.46
71	MALDEN	1,012	582	269	1,863	5.10	5.10
418	MARBLEHEAD	577	35	167	779	2.14	2.14
81	MEDFORD	1,233	261	1,584	3,078	8.43	8.43
73	MELROSE	690	99	206	995	2.73	2.73
406	MILTON	617	144	314	1,074	2.94	2.94
253	NAHANT	110	18	14	142	0.39	0.39
91	NEWTON	2,052	959	921	3,932	10.77	10.77
361	NORWOOD	645	741	370	1,756	4.81	4.81
401	QUINCY	2,081	1,135	934	4,151	11.37	11.37
142	REVERE	808	156	606	1,570	4.30	4.30
254	SAUGUS	601	201	539	1,342	3.68	3.68
101	SOMERVILLE	2,339	642	407	3,388	9.28	9.28
495	STONEHAM	429	545	390	1,364	3.74	3.74
255	SWAMPSCOTT	444	54	211	709	1.94	1.94
471	WALTHAM	1,377	2,258	700	4,335	11.88	11.88
93	WATERTOWN	763	323	561	1,647	4.51	4.51
143	WINTHROP	499	144	88	730	2.00	2.00
599	XXXXXXXSUBTOTAL	34,236	30,727	25,395	90,357	247.55	247.55

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
435	CHICOPEE	1,418	1,816	650	3,885	10.64	10.59
166	CLINTON	377	254	100	731	2.00	2.00
223	SO. HADLEY FD1	362	492	1	855	2.34	2.34
272	SOUTHBOROUGH	146	76	4	227	0.62	0.62
455	WILBRAHAM	212	80	27	320	0.88	0.88
599	XXXXXXXSUBTOTAL	2,516	2,718	783	6,017	16.49	16.44

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
61	CAMBRIDGE	1,650	3,589	861	6,100	16.71	0.00
362	CANTON	617	241	316	1,174	3.22	1.62
92	NEEDHAM	751	488	101	1,339	3.67	1.17
420	PEABODY	1,139	562	1,267	2,968	8.13	2.33
74	WAKEFIELD	713	86	111	910	2.49	1.83
94	WELLESLEY	628	281	189	1,097	3.01	0.00
479	WESTON	354	61	-7	407	1.12	1.12
497	WINCHESTER	592	143	172	907	2.48	1.78
491	WOBURN	1,037	949	574	2,560	7.01	2.51

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
599	XXXXXXXSUBTOTAL	7,482	6,399	3,582	17,463	47.84	12.37

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
265	FRAMINGHAM	1,695	1,155	359	3,209	8.79	8.54
172	LEOMINSTER	891	1,587	322	2,800	7.67	1.00
261	MARLBOROUGH	918	568	199	1,685	4.62	4.02
269	NORTHBOROUGH	196	65	18	279	0.76	0.14
501	WORCESTER	2,639	4,824	1,683	9,146	25.06	0.00
599	XXXXXXXSUBTOTAL	6,338	8,199	2,581	17,118	46.90	13.70

GROUP=OTHER MDC WATER USES

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
551	MILTON-CANTON	0	-13	0	-13	-0.03	0.00
521	SPECIAL MDC	0	978	0	978	2.68	2.68
523	SYSTEM USES	0	0	7,665	7,665	21.00	21.00
549	WACH-QPXT(WORC)	0	0	0	0	0.00	6.30
550	WACHUSETT-OTHER	0	962	0	962	2.64	2.64
599	XXXXXXXSUBTOTAL	0	1,927	7,665	9,592	26.28	32.62

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	MDCDD90
599	XXXXXXXXXXTOTAL	50,571	49,971	40,006	140,548	385.06	322.67

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

COMPONENTS OF WATER DEMAND IN 2000 UNDER MODERATE GROWTH SCENARIO (MILLIONS OF GALLONS/MILLION GALLONS PER DAY) 7

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
62	ARLINGTON	1,077	157	345	1,579	4.31	4.31
63	BELMONT	676	317	114	1,107	3.02	3.02
51	BOSTON	11,792	18,943	15,306	46,041	125.80	125.80
52	BROOKLINE	1,647	335	393	2,375	6.49	6.49
141	CHELSEA	565	627	56	1,248	3.41	3.41
72	EVERETT	723	1,807	718	3,248	8.87	8.87
476	LEXINGTON	824	1,056	298	2,179	5.95	5.95
252	LYNNFIELD WD	84	46	41	171	0.47	0.47
71	MALDEN	1,019	610	287	1,916	5.24	5.24
418	MARBLEHEAD	576	38	172	786	2.15	2.15
81	MEDFORD	1,238	266	1,614	3,118	8.52	8.52
73	MELROSE	674	105	209	988	2.70	2.70
406	MILTON	600	153	317	1,070	2.92	2.92
253	NAHANT	108	18	15	141	0.38	0.38
91	NEWTON	2,018	1,053	965	4,036	11.03	11.03
361	NORWOOD	673	895	436	2,005	5.48	5.48
401	QUINCY	2,040	1,171	956	4,167	11.39	11.39
142	REVERE	800	158	611	1,569	4.29	4.29
254	SAUGUS	616	201	557	1,374	3.76	3.76
101	SOMERVILLE	2,266	651	416	3,333	9.11	9.11
495	STONEHAM	422	583	412	1,417	3.87	3.87
255	SWAMPSCOTT	440	55	213	708	1.93	1.93
471	WALTHAM	1,377	2,515	785	4,677	12.78	12.78
93	WATERTOWN	784	376	613	1,774	4.85	4.85
143	WINTHROP	489	152	92	732	2.00	2.00
599	XXXXXXXSUBTOTAL	33,529	32,289	25,942	91,759	250.71	250.71

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
435	CHICOPEE	1,447	2,007	726	4,180	11.42	11.37
166	CLINTON	367	300	111	778	2.12	2.12
223	SO. HADLEY FD1	375	545	9	929	2.54	2.54
272	SOUTHBOROUGH	153	111	8	272	0.74	0.74
455	WILBRAHAM	217	86	31	334	0.91	0.91
599	XXXXXXXSUBTOTAL	2,560	3,049	884	6,493	17.74	17.69

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
61	CAMBRIDGE	1,617	3,772	927	6,316	17.26	0.00
362	CANTON	642	278	348	1,268	3.47	1.87
92	NEEDHAM	748	539	114	1,402	3.83	1.33
420	PEABODY	1,146	598	1,318	3,062	8.37	2.57
74	WAKEFIELD	712	100	118	930	2.54	1.88
94	WELLESLEY	614	311	199	1,124	3.07	0.00
479	WESTON	360	63	-5	418	1.14	1.14
497	WINCHESTER	591	157	181	929	2.54	1.84
491	WOBURN	1,074	1,091	649	2,814	7.69	3.19

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
599	XXXXXXXSUBTOTAL	7,503	6,910	3,850	18,264	49.90	13.81

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
265	FRAMINGHAM	1,682	1,258	393	3,332	9.10	8.85
172	LEOMINSTER	981	1,905	407	3,294	9.00	1.00
261	MARLBOROUGH	960	669	234	1,864	5.09	4.49
269	NORTHBOROUGH	207	77	22	306	0.84	0.22
501	WORCESTER	2,552	4,951	1,747	9,250	25.27	0.00
599	XXXXXXXSUBTOTAL	6,383	8,861	2,803	18,046	49.31	14.56

GROUP=OTHER MDC WATER USES

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
551	MILTON-CANTON	0	-13	0	-13	-0.03	0.00
521	SPECIAL MDC	0	979	0	979	2.68	2.68
523	SYSTEM USES	0	0	7,686	7,686	21.00	21.00
549	WACH-QPXT(WORC)	0	0	0	0	0.00	6.60
550	WACHUSETT-OTHER	0	1,011	0	1,011	2.76	2.76
599	XXXXXXXSUBTOTAL	0	1,978	7,686	9,664	26.40	33.04

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	MDCDD00
599	XXXXXXXXXXTOTAL	49,975	53,086	41,164	144,225	394.06	329.81

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
62	ARLINGTON	1,125	165	381	1,671	4.57	4.57
63	BELMONT	704	329	132	1,166	3.19	3.19
51	BOSTON	11,587	20,835	16,279	48,701	133.06	133.06
52	BROOKLINE	1,661	358	430	2,449	6.69	6.69
141	CHELSEA	598	730	80	1,408	3.85	3.85
72	EVERETT	742	2,201	885	3,829	10.46	10.46
476	LEXINGTON	835	1,200	352	2,387	6.52	6.52
252	LYNNFIELD WD	89	50	47	185	0.51	0.51
71	MALDEN	1,105	700	345	2,151	5.88	5.88
418	MARBLEHEAD	597	43	189	830	2.27	2.27
81	MEDFORD	1,350	287	1,801	3,438	9.39	9.39
73	MELROSE	709	120	236	1,065	2.91	2.91
406	MILTON	614	160	340	1,114	3.04	3.04
253	NAHANT	110	19	17	146	0.40	0.40
91	NEWTON	2,061	1,216	1,083	4,360	11.91	11.91
361	NORWOOD	737	1,127	549	2,413	6.59	6.59
401	QUINCY	2,087	1,381	1,090	4,558	12.45	12.45
142	REVERE	839	170	665	1,674	4.57	4.57
254	SAUGUS	795	208	709	1,712	4.68	4.68
101	SOMERVILLE	2,328	679	471	3,478	9.50	9.50
495	STONEHAM	431	602	440	1,473	4.03	4.03
255	SWAMPSCOTT	454	58	230	742	2.03	2.03
471	WALTHAM	1,428	3,216	1,012	5,655	15.45	15.45
93	WATERTOWN	856	498	743	2,097	5.73	5.73
143	WINTHROP	503	165	105	772	2.11	2.11
599	XXXXXXXSUBTOTAL	34,346	36,519	28,608	99,473	271.78	271.78

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
435	CHICOPEE	1,614	2,351	895	4,861	13.28	13.23
166	CLINTON	375	362	133	871	2.38	2.38
223	SO. HADLEY FD1	418	633	23	1,075	2.94	2.94
272	SOUTHBOROUGH	165	191	16	372	1.02	1.02
455	WILBRAHAM	231	84	36	351	0.96	0.96
599	XXXXXXXSUBTOTAL	2,805	3,622	1,104	7,530	20.57	20.52

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
61	CAMBRIDGE	1,641	4,337	1,118	7,096	19.39	1.79
362	CANTON	704	322	406	1,432	3.91	2.31
92	NEEDHAM	765	608	140	1,513	4.13	1.63
420	PEABODY	1,220	673	1,473	3,365	9.20	3.40
74	WAKEFIELD	744	132	140	1,016	2.78	2.12
94	WELLESLEY	618	365	227	1,210	3.31	0.00
479	WESTON	389	67	1	457	1.25	1.25
497	WINCHESTER	608	184	203	995	2.72	2.02
491	WOBURN	1,201	1,337	803	3,341	9.13	4.63

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
599	XXXXXXXSUBTOTAL	7,891	8,026	4,510	20,427	55.81	19.14

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
265	FRAMINGHAM	1,697	1,407	457	3,561	9.73	9.48
172	LEOMINSTER	1,274	2,402	573	4,249	11.61	1.00
261	MARLBOROUGH	1,054	838	299	2,190	5.98	5.38
269	NORTHBOROUGH	237	104	31	373	1.02	0.40
501	WORCESTER	2,591	5,354	1,971	9,916	27.09	0.00
599	XXXXXXXSUBTOTAL	6,853	10,105	3,332	20,289	55.43	16.26

GROUP=OTHER MDC WATER USES

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
551	MILTON-CANTON	0	-13	0	-13	-0.03	0.00
521	SPECIAL MDC	0	990	0	990	2.71	2.71
523	SYSTEM USES	0	0	7,686	7,686	21.00	21.00
549	WACH-QPXT(WORC)	0	0	0	0	0.00	7.20
550	WACHUSETT-OTHER	0	1,102	0	1,102	3.01	3.01
599	XXXXXXXSUBTOTAL	0	2,080	7,686	9,766	26.68	33.92

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	MDCDD20
599	XXXXXXXXXXTOTAL	51,894	60,351	45,239	157,485	430.29	361.63

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

COMPONENTS OF WATER DEMAND IN 1980 UNDER MODERATE GROWTH SCENARIO (MILLIONS OF GALLONS/MILLIO..

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DOM80	NDOM80	UAF80	DEM80	DDEM80	DEF80
472	ACTON	355	118	54	527	1.44	0.00
342	AMHERST	525	641	24	1,190	3.25	0.00
262	ASHLAND	319	39	68	426	1.16	0.00
1	ATHOL	160	182	78	420	1.15	0.00
113	AVON	94	33	19	146	0.40	0.00
473	BEDFORD	314	198	62	574	1.57	0.00
242	BILLERICA	816	412	108	1,336	3.65	0.00
553	BILLERICA-BEDFD	0	-71	0	-71	-0.19	0.00
402	BRAINTREE	943	236	397	1,576	4.31	0.00
111	BROCKTON	2,374	859	1,855	5,088	13.90	3.40
243	CHELMSFORD	957	256	569	1,782	4.87	0.00
413	DANVERS	544	336	105	985	2.69	0.00
363	DEDHAM	469	242	325	1,036	2.83	0.00
118	EASTON	303	110	169	582	1.59	0.00
161	FITCHBURG	806	1,066	961	2,833	7.74	0.00
123	HOLBROOK	206	69	50	325	0.89	0.00
507	HOLDEN	300	48	181	529	1.45	0.00
287	HOPKINTON	155	43	11	209	0.57	0.00
266	HUDSON	443	78	281	802	2.19	0.00
170	LANCASTER	148	15	37	200	0.55	0.00
251	LYNN	3,214	1,607	852	5,673	15.50	0.98
522	LYNNFIELD CWD	181	4	28	213	0.58	0.00
419	MIDDLETON	60	50	13	123	0.34	0.00
268	NATICK	994	163	472	1,629	4.45	0.00
234	NORTH ANDOVER	653	163	32	848	2.32	0.00
493	NORTH READING	216	24	119	359	0.98	0.00
514	PAXTON	69	1	11	81	0.22	0.00
130	RANDOLPH	582	213	161	956	2.61	0.00
515	RUTLAND	58	22	9	89	0.24	0.01
177	STERLING	114	16	25	155	0.42	0.00
133	STOUGHTON	672	74	132	878	2.40	0.42
248	TYNGSBOROUGH	136	26	36	198	0.54	0.54
450	WARE	220	47	70	337	0.92	0.00
518	WESTBOROUGH	374	198	169	741	2.02	0.00
370	WESTWOOD	252	131	175	558	1.52	0.00
135	WHITMAN	197	65	29	291	0.80	0.80
496	WILMINGTON	321	482	240	1,043	2.85	0.00
552	XFROM MDC USERS	0	-1,079	0	-1,079	-2.95	0.00
599	XXXXXXXXXXTOTAL	18,544	7,117	7,927	33,588	91.77	6.15

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

COMPONENTS OF WATER DEMAND IN 1990 UNDER MODERATE GROWTH SCENARIO (MILLIONS OF GALLONS/MILLION GALLONS PER DAY) 3

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DOM90	NDOM90	UAF90	DEM90	DDEM90	DEF90
472	ACTON	433	146	44	623	1.71	0.00
342	AMHERST	531	655	-16	1,170	3.21	0.00
262	ASHLAND	377	43	57	477	1.31	0.00
1	ATHOL	162	208	66	435	1.19	0.00
113	AVON	102	42	14	159	0.43	0.00
473	BEDFORD	319	233	46	598	1.64	0.00
242	BILLERICA	837	462	67	1,366	3.74	0.00
553	BILLERICA-BEDFD	0	-71	0	-71	-0.19	0.00
402	BRAINTREE	967	278	363	1,608	4.41	0.00
111	BROCKTON	2,503	550	1,590	4,643	12.72	2.22
243	CHELMSFORD	644	325	407	1,375	3.77	0.00
413	DANVERS	555	378	76	1,009	2.76	0.00
363	DEDHAM	469	240	290	999	2.74	0.00
118	EASTON	309	126	157	592	1.62	0.00
161	FITCHBURG	786	1,193	915	2,894	7.93	0.00
123	HOLBROOK	229	75	43	347	0.95	0.00
507	HOLDEN	332	59	176	568	1.56	0.00
287	HOPKINTON	170	51	4	225	0.62	0.00
266	HUDSON	493	90	284	867	2.38	0.00
170	LANCASTER	196	18	40	254	0.69	0.00
251	LYNN	2,935	1,644	579	5,157	14.13	0.00
522	LYNNFIELD CWD	193	5	22	221	0.61	0.00
419	MIDDLETON	68	66	11	144	0.40	0.00
268	NATICK	1,016	172	429	1,617	4.43	0.00
234	NORTH ANDOVER	551	187	3	741	2.03	0.00
493	NORTH READING	242	31	121	394	1.08	0.00
514	PAXTON	76	1	9	86	0.24	0.00
130	RANDOLPH	613	270	143	1,026	2.81	0.00
515	RUTLAND	63	22	5	91	0.25	0.02
177	STERLING	159	21	27	207	0.57	0.00
133	STOUGHTON	718	82	110	910	2.49	0.51
248	TYNGSBOROUGH	172	32	37	241	0.66	0.66
450	WARE	144	49	40	233	0.64	0.00
518	WESTBOROUGH	395	224	156	774	2.12	0.00
370	WESTWOOD	268	147	164	580	1.59	0.00
135	WHITMAN	205	70	20	296	0.81	0.81
496	WILMINGTON	339	579	234	1,151	3.15	0.00
552	XFROM MDC USERS	0	-940	0	-940	-2.58	0.00
599	XXXXXXXXXXTOTAL	18,572	7,761	6,736	33,069	90.60	4.22

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DOM00	NDOM00	UAF00	DEM00	DDEM00	DEF00
472	ACTON	459	165	53	678	1.85	0.00
342	AMHERST	550	664	-9	1,205	3.29	0.00
262	ASHLAND	422	50	69	541	1.48	0.00
1	ATHOL	156	251	77	485	1.32	0.00
113	AVON	106	48	17	171	0.47	0.00
473	BEDFORD	358	265	58	682	1.86	0.00
242	BILLERICA	906	602	93	1,601	4.37	0.00
553	BILLERICA-BEDFD	0	-71	0	-71	-0.19	0.00
402	BRAINTREE	1,037	303	404	1,744	4.76	0.00
111	BROCKTON	2,530	550	1,633	4,713	12.88	2.38
243	CHELMSFORD	672	382	455	1,509	4.12	0.00
413	DANVERS	574	414	89	1,077	2.94	0.00
363	DEDHAM	469	240	295	1,005	2.75	0.00
118	EASTON	347	136	180	663	1.81	0.00
161	FITCHBURG	792	1,319	1,000	3,112	8.50	0.00
123	HOLBROOK	249	81	50	380	1.04	0.00
507	HOLDEN	356	68	196	621	1.70	0.00
287	HOPKINTON	189	55	7	251	0.69	0.00
266	HUDSON	531	100	315	946	2.59	0.00
170	LANCASTER	216	20	46	282	0.77	0.00
251	LYNN	2,969	1,749	632	5,350	14.62	0.48
522	LYNNFIELD CWD	196	6	24	227	0.62	0.00
419	MIDDLETON	70	85	14	169	0.46	0.07
268	NATICK	1,037	184	451	1,672	4.57	0.00
234	NORTH ANDOVER	654	212	13	879	2.40	0.00
493	NORTH READING	252	34	131	417	1.14	0.00
514	PAXTON	82	1	10	93	0.25	0.00
130	RANDOLPH	629	317	162	1,108	3.03	0.00
515	RUTLAND	71	22	7	99	0.27	0.04
177	STERLING	205	24	38	266	0.73	0.00
133	STOUGHTON	749	89	122	959	2.62	0.64
248	TYNGSBOROUGH	194	36	44	274	0.75	0.75
450	WARE	147	50	42	239	0.65	0.00
518	WESTBOROUGH	424	233	172	829	2.27	0.00
370	WESTWOOD	285	159	180	624	1.70	0.00
135	WHITMAN	213	82	24	318	0.87	0.87
496	WILMINGTON	343	678	272	1,293	3.53	0.00
552	XFROM MDC USERS	0	-940	0	-940	-2.57	0.00
599	XXXXXXXXXXTOTAL	19,438	8,665	7,366	35,469	96.91	5.23

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

COMPONENTS OF WATER DEMAND IN 2020 UNDER MODERATE GROWTH SCENARIO (MILLIONS OF GALLONS/MILLION GALLONS PER DAY) 5

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DOM20	NDOM20	UAF20	DEM20	DDEM20	DEF20
472	ACTON	492	196	68	755	2.06	0.06
342	AMHERST	607	690	6	1,303	3.56	0.00
262	ASHLAND	520	69	95	683	1.87	0.00
1	ATHOL	178	397	119	694	1.90	0.16
113	AVON	120	58	22	199	0.54	0.00
473	BEDFORD	429	339	83	851	2.32	0.14
242	BILLERICA	1,078	899	150	2,128	5.81	0.00
553	BILLERICA-BEDFD	0	-71	0	-71	-0.19	0.00
402	BRAINTREE	1,223	345	500	2,068	5.65	0.00
111	BROCKTON	2,537	569	1,702	4,808	13.14	2.64
243	CHELMSFORD	753	483	556	1,792	4.90	0.00
413	DANVERS	617	514	117	1,249	3.41	0.08
363	DEDHAM	478	258	319	1,054	2.88	0.00
118	EASTON	435	151	230	816	2.23	0.00
161	FITCHBURG	830	1,646	1,221	3,697	10.10	0.00
123	HOLBROOK	286	96	64	446	1.22	0.00
507	HOLDEN	415	84	241	740	2.02	0.00
287	HOPKINTON	224	61	12	297	0.81	0.00
266	HUDSON	580	115	360	1,055	2.88	0.01
170	LANCASTER	264	22	60	346	0.95	0.00
251	LYNN	3,235	2,143	801	6,179	16.88	2.74
522	LYNNFIELD CWD	205	7	28	241	0.66	0.00
419	MIDDLETON	73	130	22	225	0.61	0.61
268	NATICK	1,096	211	505	1,813	4.95	0.00
234	NORTH ANDOVER	920	276	34	1,230	3.36	0.00
493	NORTH READING	268	39	146	453	1.24	0.00
514	PAXTON	95	1	14	109	0.30	0.00
130	RANDOLPH	653	404	196	1,253	3.42	0.00
515	RUTLAND	88	23	10	121	0.33	0.10
177	STERLING	302	27	60	388	1.06	0.00
133	STOUGHTON	808	97	144	1,050	2.87	0.89
248	TYNGSBOROUGH	242	41	59	342	0.93	0.93
450	WARE	157	52	48	257	0.70	0.00
518	WESTBOROUGH	475	233	196	905	2.47	0.00
370	WESTWOOD	311	187	210	708	1.93	0.00
135	WHITMAN	228	121	33	382	1.04	1.04
496	WILMINGTON	347	890	350	1,587	4.34	0.24
552	XFROM MDC USERS	0	-940	0	-940	-2.57	0.00
599	XXXXXXXXXXTOTAL	21,573	10,861	8,777	41,211	112.60	9.66

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

DOMESTIC WATER DEMAND UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 11

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
62	ARLINGTON	3.18	2.98	2.94	3.07
63	BELMONT	1.86	1.84	1.85	1.92
51	BOSTON	35.66	33.59	32.22	31.66
52	BROOKLINE	4.94	4.66	4.50	4.54
141	CHELSEA	1.80	1.59	1.54	1.63
72	EVERETT	2.19	2.03	1.98	2.03
476	LEXINGTON	2.46	2.28	2.25	2.28
252	LYNNFIELD WD	0.22	0.23	0.23	0.24
71	MALDEN	2.98	2.77	2.79	3.02
418	MARBLEHEAD	1.56	1.58	1.57	1.63
81	MEDFORD	3.53	3.38	3.38	3.69
73	MELROSE	1.91	1.89	1.84	1.94
406	MILTON	1.70	1.69	1.64	1.68
253	NAHANT	0.30	0.30	0.29	0.30
91	NEWTON	6.00	5.62	5.51	5.63
361	NORWOOD	1.68	1.77	1.84	2.01
401	QUINCY	5.65	5.70	5.57	5.70
142	REVERE	2.34	2.21	2.19	2.29
254	SAUGUS	1.64	1.65	1.68	2.17
101	SOMERVILLE	6.60	6.41	6.19	6.36
495	STONEHAM	1.16	1.18	1.15	1.18
255	SWAMPSCOTT	1.20	1.22	1.20	1.24
471	WALTHAM	3.91	3.77	3.76	3.90
93	WATERTOWN	2.27	2.09	2.14	2.34
143	WINTHROP	1.42	1.37	1.34	1.37
599	XXXXXXXSUBTOTAL	98.14	93.80	91.61	93.84

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
435	CHICOPEE	3.89	3.89	3.95	4.41
166	CLINTON	1.05	1.03	1.00	1.03
223	SO. HADLEY FD1	0.97	0.99	1.03	1.14
272	SOUTHBOROUGH	0.35	0.40	0.42	0.45
455	WILBRAHAM	0.55	0.58	0.59	0.63
599	XXXXXXXSUBTOTAL	6.81	6.89	6.99	7.66

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
61	CAMBRIDGE	5.19	4.52	4.42	4.48
362	CANTON	1.60	1.69	1.75	1.92
92	NEEDHAM	2.10	2.06	2.04	2.09
420	PEABODY	3.20	3.12	3.13	3.33
74	WAKEFIELD	1.84	1.95	1.95	2.03
94	WELLESLEY	1.80	1.72	1.68	1.69
479	WESTON	0.96	0.97	0.98	1.06
497	WINCHESTER	1.69	1.62	1.62	1.66
491	WOBURN	2.92	2.84	2.93	3.28

DOMESTIC WATER DEMAND UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 12

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
599	XXXXXXXSUBTOTAL	21.30	20.50	20.50	21.56

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
265	FRAMINGHAM	4.71	4.64	4.59	4.64
172	LEOMINSTER	1.91	2.44	2.68	3.48
261	MARLBOROUGH	2.27	2.51	2.62	2.88
269	NORTHBOROUGH	0.47	0.54	0.57	0.65
501	WORCESTER	7.40	7.23	6.97	7.08
599	XXXXXXXSUBTOTAL	16.77	17.37	17.44	18.72

GROUP=OTHER MDC WATER USES

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
551	MILTON-CANTON	0.00	0.00	0.00	0.00
521	SPECIAL MDC	0.00	0.00	0.00	0.00
523	SYSTEM USES	0.00	0.00	0.00	0.00
549	WACH-QPXT(WORC)	0.00	0.00	0.00	0.00
550	WACHUSETT-OTHER	0.00	0.00	0.00	0.00
599	XXXXXXXSUBTOTAL	0.00	0.00	0.00	0.00

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
599	XXXXXXXXXXTOTAL	143.03	138.55	136.54	141.79

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
62	ARLINGTON	0.39	0.42	0.43	0.45
63	BELMONT	0.75	0.83	0.87	0.90
51	BOSTON	48.16	50.42	51.76	56.93
52	BROOKLINE	0.86	0.91	0.91	0.98
141	CHELSEA	1.34	1.55	1.71	2.00
72	EVERETT	4.22	4.55	4.94	6.01
476	LEXINGTON	2.41	2.66	2.88	3.28
252	LYNNFIELD WD	0.11	0.12	0.13	0.14
71	MALDEN	1.51	1.59	1.67	1.91
418	MARBLEHEAD	0.08	0.10	0.10	0.12
81	MEDFORD	0.68	0.71	0.73	0.78
73	MELROSE	0.24	0.27	0.29	0.33
406	MILTON	0.34	0.39	0.42	0.44
253	NAHANT	0.05	0.05	0.05	0.05
91	NEWTON	2.22	2.63	2.88	3.32
361	NORWOOD	1.61	2.03	2.45	3.08
401	QUINCY	3.13	3.11	3.20	3.77
142	REVERE	0.41	0.43	0.43	0.46
254	SAUGUS	0.55	0.55	0.55	0.57
101	SOMERVILLE	1.73	1.76	1.78	1.86
495	STONEHAM	1.31	1.49	1.59	1.65
255	SWAMPSCOTT	0.14	0.15	0.15	0.16
471	WALTHAM	5.35	6.19	6.87	8.79
93	WATERTOWN	0.74	0.88	1.03	1.36
143	WINTHROP	0.36	0.39	0.42	0.45
599	XXXXXXXSUBTOTAL	78.71	84.18	88.22	99.78

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
435	CHICOPEE	4.47	4.98	5.48	6.42
166	CLINTON	0.55	0.70	0.82	0.99
223	SO. HADLEY FD1	1.14	1.35	1.49	1.73
272	SOUTHBOROUGH	0.14	0.21	0.30	0.52
455	WILBRAHAM	0.19	0.22	0.23	0.23
599	XXXXXXXSUBTOTAL	6.48	7.45	8.33	9.90

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
61	CAMBRIDGE	9.08	9.83	10.31	11.85
362	CANTON	0.52	0.66	0.76	0.88
92	NEEDHAM	1.14	1.34	1.47	1.66
420	PEABODY	1.49	1.54	1.63	1.84
74	WAKEFIELD	0.20	0.24	0.27	0.36
94	WELLESLEY	0.64	0.77	0.85	1.00
479	WESTON	0.16	0.17	0.17	0.18
497	WINCHESTER	0.33	0.39	0.43	0.50
491	WOBURN	2.10	2.60	2.98	3.65

NONDOMESTIC WATER DEMAND UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 14

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
599	XXXXXXXSUBTOTAL	15.65	17.53	18.88	21.93

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
265	FRAMINGHAM	2.68	3.16	3.44	3.84
172	LEOMINSTER	3.37	4.35	5.21	6.56
261	MARLBOROUGH	1.24	1.56	1.83	2.29
269	NORTHBOROUGH	0.14	0.18	0.21	0.29
501	WORCESTER	12.36	13.22	13.53	14.63
599	XXXXXXXSUBTOTAL	19.79	22.46	24.21	27.61

GROUP=OTHER MDC WATER USES

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
551	MILTON-CANTON	-0.03	-0.03	-0.03	-0.03
521	SPECIAL MDC	3.06	2.68	2.68	2.71
523	SYSTEM USES	0.00	0.00	0.00	0.00
549	WACH-QPXT(WORC)	0.00	0.00	0.00	0.00
550	WACHUSETT-OTHER	2.51	2.64	2.76	3.01
599	XXXXXXXSUBTOTAL	5.53	5.28	5.40	5.68

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
599	XXXXXXXXXXTOTAL	126.17	136.91	145.04	164.89

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
62	ARLINGTON	1.19	0.93	0.94	1.04	1.08	1.07	1.12
63	BELMONT	0.41	0.29	0.31	0.36	0.39	0.40	0.41
51	BOSTON	51.42	41.82	41.82	44.48	48.44	48.42	51.08
52	BROOKLINE	1.36	1.07	1.07	1.17	1.30	1.27	1.29
141	CHELSEA	0.24	0.12	0.15	0.22	0.24	0.25	0.27
72	EVERETT	2.05	1.81	1.96	2.42	2.10	2.20	2.56
476	LEXINGTON	0.93	0.75	0.82	0.96	0.94	0.98	1.06
252	LYNNFIELD WD	0.11	0.11	0.11	0.13	0.12	0.13	0.14
71	MALDEN	0.94	0.74	0.78	0.94	0.91	0.93	1.03
418	MARBLEHEAD	0.52	0.46	0.47	0.52	0.53	0.53	0.55
81	MEDFORD	4.77	4.34	4.41	4.92	4.63	4.65	5.07
73	MELROSE	0.66	0.57	0.57	0.64	0.66	0.65	0.69
406	MILTON	0.94	0.86	0.87	0.93	0.96	0.95	0.98
253	NAHANT	0.05	0.04	0.04	0.05	0.05	0.05	0.05
91	NEWTON	2.89	2.52	2.64	2.96	2.90	2.95	3.14
361	NORWOOD	1.05	1.01	1.19	1.50	1.18	1.33	1.58
401	QUINCY	2.94	2.56	2.61	2.98	2.95	2.94	3.18
142	REVERE	1.89	1.66	1.67	1.82	1.81	1.79	1.89
254	SAUGUS	1.60	1.48	1.52	1.94	1.61	1.63	2.00
101	SOMERVILLE	1.47	1.12	1.14	1.29	1.44	1.40	1.45
495	STONEHAM	1.11	1.07	1.13	1.20	1.20	1.23	1.27
255	SWAMPSCOTT	0.63	0.58	0.58	0.63	0.64	0.64	0.66
471	WALTHAM	2.24	1.92	2.15	2.76	2.33	2.49	2.97
93	WATERTOWN	1.71	1.54	1.68	2.03	1.69	1.81	2.11
143	WINTHROP	0.31	0.24	0.25	0.29	0.31	0.31	0.32
599	XXXXXXXSUBTOTAL	83.43	69.58	70.88	78.16	80.43	81.00	86.88

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
435	CHICOPEE	2.03	1.78	1.98	2.45	2.15	2.29	2.63
166	CLINTON	0.32	0.27	0.30	0.36	0.34	0.36	0.40
223	SO. HADLEY FD1	0.08	0.00	0.02	0.06	0.09	0.09	0.10
272	SOUTHBOROUGH	0.03	0.01	0.02	0.04	0.03	0.04	0.05
455	WILBRAHAM	0.10	0.08	0.08	0.10	0.11	0.11	0.11
599	XXXXXXXSUBTOTAL	2.55	2.14	2.42	3.02	2.72	2.89	3.30

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
61	CAMBRIDGE	2.92	2.36	2.53	3.05	2.94	3.01	3.34
362	CANTON	0.91	0.86	0.95	1.11	0.98	1.04	1.16
92	NEEDHAM	0.39	0.28	0.31	0.38	0.40	0.42	0.45
420	PEABODY	3.77	3.47	3.60	4.02	3.75	3.84	4.16
74	WAKEFIELD	0.39	0.30	0.32	0.38	0.39	0.39	0.43
94	WELLESLEY	0.61	0.52	0.54	0.62	0.62	0.63	0.67
479	WESTON	0.02	-0.02	-0.01	0.00	0.02	0.02	0.02
497	WINCHESTER	0.96	0.47	0.49	0.56	0.56	0.57	0.60
491	WOBURN	1.68	1.57	1.77	2.19	1.82	1.98	2.32

UNACCOUNTED-FOR WATER UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 16

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
599	XXXXXXXSUBTOTAL	11.65	9.81	10.52	12.32	11.48	11.90	13.15

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
265	FRAMINGHAM	1.22	0.98	1.07	1.25	1.29	1.33	1.40
172	LEOMINSTER	0.89	0.88	1.11	1.57	1.15	1.33	1.70
261	MARLBOROUGH	0.61	0.55	0.64	0.82	0.71	0.77	0.90
269	NORTHBOROUGH	0.07	0.05	0.06	0.09	0.08	0.08	0.10
501	WORCESTER	5.90	4.61	4.77	5.38	5.48	5.50	5.82
599	XXXXXXXSUBTOTAL	8.69	7.07	7.66	9.10	8.70	9.01	9.92

GROUP=OTHER MDC WATER USES

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
551	MILTON-CANTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00
521	SPECIAL MDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00
523	SYSTEM USES	30.08	21.00	21.00	21.00	21.00	21.00	21.00
549	WACH-QPXT(WORC)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
550	WACHUSETT-OTHER	0.00	0.00	0.00	0.00	0.00	0.00	0.00
599	XXXXXXXSUBTOTAL	30.08	21.00	21.00	21.00	21.00	21.00	21.00

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
599	XXXXXXXXXXTOTAL	136.40	109.60	112.47	123.61	124.33	125.81	134.25

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
62	ARLINGTON	4.76	4.33	4.31	4.57
63	BELMONT	3.02	2.95	3.02	3.19
51	BOSTON	135.24	125.82	125.80	133.06
52	BROOKLINE	7.15	6.64	6.49	6.69
141	CHELSEA	3.38	3.26	3.41	3.85
72	EVERETT	8.47	8.39	8.87	10.46
476	LEXINGTON	5.80	5.69	5.95	6.52
252	LYNNFIELD WD	0.44	0.46	0.47	0.51
71	MALDEN	5.43	5.10	5.24	5.88
418	MARBLEHEAD	2.16	2.14	2.15	2.27
81	MEDFORD	8.98	8.43	8.52	9.39
73	MELROSE	2.81	2.73	2.70	2.91
406	MILTON	2.98	2.94	2.92	3.04
253	NAHANT	0.40	0.39	0.38	0.40
91	NEWTON	11.11	10.77	11.03	11.91
361	NORWOOD	4.35	4.81	5.48	6.59
401	QUINCY	11.72	11.37	11.39	12.45
142	REVERE	4.64	4.30	4.29	4.57
254	SAUGUS	3.78	3.68	3.76	4.68
101	SOMERVILLE	9.80	9.28	9.11	9.50
495	STONEHAM	3.58	3.74	3.87	4.03
255	SWAMPSCOTT	1.97	1.94	1.93	2.03
471	WALTHAM	11.50	11.88	12.78	15.45
93	WATERTOWN	4.72	4.51	4.85	5.73
143	WINTHROP	2.08	2.00	2.00	2.11
599	XXXXXXXSUBTOTAL	260.28	247.55	250.71	271.78

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
435	CHICOPEE	10.38	10.64	11.42	13.28
166	CLINTON	1.92	2.00	2.12	2.38
223	SO. HADLEY FD1	2.18	2.34	2.54	2.94
272	SOUTHBOROUGH	0.52	0.62	0.74	1.02
455	WILBRAHAM	0.84	0.88	0.91	0.96
599	XXXXXXXSUBTOTAL	15.84	16.49	17.74	20.57

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
61	CAMBRIDGE	17.19	16.71	17.26	19.39
362	CANTON	3.03	3.22	3.47	3.91
92	NEEDHAM	3.63	3.67	3.83	4.13
420	PEABODY	8.46	8.13	8.37	9.20
74	WAKEFIELD	2.43	2.49	2.54	2.78
94	WELLESLEY	3.05	3.01	3.07	3.31
479	WESTON	1.14	1.12	1.14	1.25
497	WINCHESTER	2.98	2.48	2.54	2.72
491	WOBURN	6.70	7.01	7.69	9.13

TOTAL DEMAND FOR WATER UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 18

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
599	XXXXXXXSUBTOTAL	48.61	47.84	49.90	55.81

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
265	FRAMINGHAM	8.61	8.79	9.10	9.73
172	LEOMINSTER	6.17	7.67	9.00	11.61
261	MARLBOROUGH	4.12	4.62	5.09	5.98
269	NORTHBOROUGH	0.68	0.76	0.84	1.02
501	WORCESTER	25.67	25.06	25.27	27.09
599	XXXXXXXSUBTOTAL	45.26	46.90	49.31	55.43

GROUP=OTHER MDC WATER USES

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
551	MILTON-CANTON	-0.03	-0.03	-0.03	-0.03
521	SPECIAL MDC	3.06	2.68	2.68	2.71
523	SYSTEM USES	30.08	21.00	21.00	21.00
549	WACH-QPXT(WORC)	0.00	0.00	0.00	0.00
550	WACHUSETT-OTHER	2.51	2.64	2.76	3.01
599	XXXXXXXSUBTOTAL	35.61	26.28	26.40	26.68

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
599	XXXXXXXXXXTOTAL	405.60	385.06	394.06	430.29

DOMESTIC WATER DEMAND UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 6

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DDOM80	DDOM90	DDOM00	DDOM20
472	ACTON	0.97	1.19	1.26	1.34
342	AMHERST	1.43	1.45	1.50	1.66
262	ASHLAND	0.87	1.03	1.15	1.42
1	ATHOL	0.44	0.44	0.43	0.49
113	AVON	0.26	0.28	0.29	0.33
473	BEDFORD	0.86	0.87	0.98	1.17
242	BILLERICA	2.23	2.29	2.47	2.95
553	BILLERICA-BEDFD	0.00	0.00	0.00	0.00
402	BRAINTREE	2.58	2.65	2.83	3.34
111	BROCKTON	6.49	6.86	6.91	6.93
243	CHELMSFORD	2.61	1.76	1.84	2.06
413	DANVERS	1.49	1.52	1.57	1.69
363	DEDHAM	1.28	1.29	1.28	1.31
118	EASTON	0.83	0.85	0.95	1.19
161	FITCHBURG	2.20	2.15	2.16	2.27
123	HOLBROOK	0.56	0.63	0.68	0.78
507	HOLDEN	0.82	0.91	0.97	1.13
287	HOPKINTON	0.42	0.47	0.52	0.61
266	HUDSON	1.21	1.35	1.45	1.59
170	LANCASTER	0.40	0.54	0.59	0.72
251	LYNN	8.78	8.04	8.11	8.84
522	LYNNFIELD CWD	0.49	0.53	0.54	0.56
419	MIDDLETON	0.16	0.19	0.19	0.20
268	NATICK	2.72	2.78	2.83	3.00
234	NORTH ANDOVER	1.78	1.51	1.79	2.52
493	NORTH READING	0.59	0.66	0.69	0.73
514	PAXTON	0.19	0.21	0.22	0.26
130	RANDOLPH	1.59	1.68	1.72	1.78
515	RUTLAND	0.16	0.17	0.19	0.24
177	STERLING	0.31	0.44	0.56	0.83
133	STOUGHTON	1.84	1.97	2.05	2.21
248	TYNGSBOROUGH	0.37	0.47	0.53	0.66
450	WARE	0.60	0.39	0.40	0.43
518	WESTBOROUGH	1.02	1.08	1.16	1.30
370	WESTWOOD	0.69	0.73	0.78	0.85
135	WHITMAN	0.54	0.56	0.58	0.62
496	WILMINGTON	0.88	0.93	0.94	0.95
552	XFROM MDC USERS	0.00	0.00	0.00	0.00
599	XXXXXXXXXXTOTAL	50.67	50.88	53.11	58.94

NONDOMESTIC WATER DEMAND UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 7

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DNDOM80	DNDOM90	DNDOM00	DNDOM20
472	ACTON	0.32	0.40	0.45	0.53
342	AMHERST	1.75	1.80	1.81	1.88
262	ASHLAND	0.11	0.12	0.14	0.19
1	ATHOL	0.50	0.57	0.69	1.08
113	AVON	0.09	0.11	0.13	0.16
473	BEDFORD	0.54	0.64	0.72	0.93
242	BILLERICA	1.13	1.27	1.65	2.46
553	BILLERICA-BEDFD	-0.19	-0.19	-0.19	-0.19
402	BRAINTREE	0.64	0.76	0.83	0.94
111	BROCKTON	2.35	1.51	1.50	1.56
243	CHELMSFORD	0.70	0.89	1.04	1.32
413	DANVERS	0.92	1.03	1.13	1.40
363	DEDHAM	0.66	0.66	0.66	0.70
118	EASTON	0.30	0.34	0.37	0.41
161	FITCHBURG	2.91	3.27	3.60	4.50
123	HOLBROOK	0.19	0.20	0.22	0.26
507	HOLDEN	0.13	0.16	0.19	0.23
287	HOPKINTON	0.12	0.14	0.15	0.17
266	HUDSON	0.21	0.25	0.27	0.31
170	LANCASTER	0.04	0.05	0.05	0.06
251	LYNN	4.39	4.50	4.78	5.86
522	LYNNFIELD CWD	0.01	0.02	0.02	0.02
419	MIDDLETON	0.14	0.18	0.23	0.36
268	NATICK	0.45	0.47	0.50	0.58
234	NORTH ANDOVER	0.45	0.51	0.58	0.75
493	NORTH READING	0.07	0.08	0.09	0.11
514	PAXTON	0.00	0.00	0.00	0.00
130	RANDOLPH	0.58	0.74	0.87	1.10
515	RUTLAND	0.06	0.06	0.06	0.06
177	STERLING	0.04	0.06	0.06	0.07
133	STOUGHTON	0.20	0.23	0.24	0.27
248	TYNGSBOROUGH	0.07	0.09	0.10	0.11
450	WARE	0.13	0.13	0.14	0.14
518	WESTBOROUGH	0.54	0.61	0.64	0.64
370	WESTWOOD	0.36	0.40	0.44	0.51
135	WHITMAN	0.18	0.19	0.22	0.33
496	WILMINGTON	1.32	1.58	1.85	2.43
552	XFROM MDC USERS	-2.95	-2.58	-2.57	-2.57
599	XXXXXXXXXXTOTAL	19.45	21.26	23.68	29.67

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DUAF80	DUAF90	DUAF00	DUAF20	DPUAF90	DPUAF00	DPUAF20
472	ACTON	0.15	0.12	0.15	0.18	0.18	0.19	0.21
342	AMHERST	0.07	-0.04	-0.02	0.02	0.07	0.07	0.07
262	ASHLAND	0.19	0.16	0.19	0.26	0.20	0.23	0.28
1	ATHOL	0.21	0.18	0.21	0.32	0.22	0.24	0.35
113	AVON	0.05	0.04	0.05	0.06	0.05	0.06	0.07
473	BEDFORD	0.17	0.13	0.16	0.23	0.18	0.21	0.25
242	BILLERICA	0.30	0.18	0.25	0.41	0.31	0.36	0.48
553	BILLERICA-BEDFD	0.00	0.00	0.00	0.00	0.00	0.00	0.00
402	BRAINTREE	1.08	1.00	1.10	1.37	1.15	1.23	1.44
111	BROCKTON	5.07	4.36	4.46	4.65	4.80	4.83	4.87
243	CHELMSFORD	1.55	1.11	1.24	1.52	1.24	1.35	1.58
413	DANVERS	0.29	0.21	0.24	0.32	0.30	0.32	0.37
363	DEDHAM	0.89	0.79	0.81	0.87	0.89	0.89	0.92
118	EASTON	0.46	0.43	0.49	0.63	0.49	0.54	0.66
161	FITCHBURG	2.63	2.51	2.73	3.34	2.78	2.96	3.47
123	HOLBROOK	0.14	0.12	0.14	0.17	0.15	0.16	0.19
507	HOLDEN	0.49	0.48	0.54	0.66	0.54	0.58	0.68
287	HOPKINTON	0.03	0.01	0.02	0.03	0.03	0.04	0.04
266	HUDSON	0.77	0.78	0.86	0.98	0.86	0.93	1.02
170	LANCASTER	0.10	0.11	0.13	0.17	0.13	0.15	0.18
251	LYNN	2.33	1.59	1.73	2.19	2.08	2.13	2.43
522	LYNNFIELD CWD	0.08	0.06	0.07	0.08	0.08	0.08	0.09
419	MIDDLETON	0.04	0.03	0.04	0.06	0.04	0.05	0.07
268	NATICK	1.29	1.17	1.23	1.38	1.33	1.36	1.46
234	NORTH ANDOVER	0.09	0.01	0.03	0.09	0.08	0.09	0.13
493	NORTH READING	0.33	0.33	0.36	0.40	0.37	0.39	0.42
514	PAXTON	0.03	0.02	0.03	0.04	0.03	0.04	0.04
130	RANDOLPH	0.44	0.39	0.44	0.54	0.49	0.52	0.58
515	RUTLAND	0.02	0.01	0.02	0.03	0.02	0.03	0.03
177	STERLING	0.07	0.07	0.10	0.16	0.09	0.12	0.17
133	STOUGHTON	0.36	0.30	0.33	0.39	0.39	0.40	0.44
248	TYNGSBOROUGH	0.10	0.10	0.12	0.16	0.12	0.14	0.17
450	WARE	0.19	0.11	0.11	0.13	0.13	0.13	0.14
518	WESTBOROUGH	0.46	0.43	0.47	0.54	0.50	0.53	0.57
370	WESTWOOD	0.48	0.45	0.49	0.57	0.50	0.54	0.60
135	WHITMAN	0.08	0.06	0.07	0.09	0.08	0.09	0.11
496	WILMINGTON	0.66	0.64	0.74	0.96	0.75	0.83	1.01
552	XFROM MDC USERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
599	XXXXXXXXXXTOTAL	21.66	18.45	20.12	23.98	21.70	22.82	25.60

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

TOTAL DEMAND FOR WATER UNDER MODERATE GROWTH SCENARIO (MILLION GALLONS PER DAY) 9

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DDEM80	DDEM90	DDEM00	DDEM20
472	ACTON	1.44	1.71	1.85	2.06
342	AMHERST	3.25	3.21	3.29	3.56
262	ASHLAND	1.16	1.31	1.48	1.87
1	ATHOL	1.15	1.19	1.32	1.90
113	AVON	0.40	0.43	0.47	0.54
473	BEDFORD	1.57	1.64	1.86	2.32
242	BILLERICA	3.65	3.74	4.37	5.81
553	BILLERICA-BEDFD	-0.19	-0.19	-0.19	-0.19
402	BRAINTREE	4.31	4.41	4.76	5.65
111	BROCKTON	13.90	12.72	12.88	13.14
243	CHELMSFORD	4.87	3.77	4.12	4.90
413	DANVERS	2.69	2.76	2.94	3.41
363	DEDHAM	2.83	2.74	2.75	2.88
118	EASTON	1.59	1.62	1.81	2.23
161	FITCHBURG	7.74	7.93	8.50	10.10
123	HOLBROOK	0.89	0.95	1.04	1.22
507	HOLDEN	1.45	1.56	1.70	2.02
287	HOPKINTON	0.57	0.62	0.69	0.81
266	HUDSON	2.19	2.38	2.59	2.88
170	LANCASTER	0.55	0.69	0.77	0.95
251	LYNN	15.50	14.13	14.62	16.88
522	LYNNFIELD CWD	0.58	0.61	0.62	0.66
419	MIDDLETON	0.34	0.40	0.46	0.61
268	NATICK	4.45	4.43	4.57	4.95
234	NORTH ANDOVER	2.32	2.03	2.40	3.36
493	NORTH READING	0.98	1.08	1.14	1.24
514	PAXTON	0.22	0.24	0.25	0.30
130	RANDOLPH	2.61	2.81	3.03	3.42
515	RUTLAND	0.24	0.25	0.27	0.33
177	STERLING	0.42	0.57	0.73	1.06
133	STOUGHTON	2.40	2.49	2.62	2.87
248	TYNGSBOROUGH	0.54	0.66	0.75	0.93
450	WARE	0.92	0.64	0.65	0.70
518	WESTBOROUGH	2.02	2.12	2.27	2.47
370	WESTWOOD	1.52	1.59	1.70	1.93
135	WHITMAN	0.80	0.81	0.87	1.04
496	WILMINGTON	2.85	3.15	3.53	4.34
552	XFROM MDC USERS	-2.95	-2.58	-2.57	-2.57
599	XXXXXXXXXXTOTAL	91.77	90.60	96.91	112.60

APPENDIX C - DETAILED WATER DEMAND PROJECTIONS BY COMPONENT BY COMMUNITY

C-1 Domestic Water Demand Projections

C-2 Nondomestic Water Demand Projections

C-3.1 Components of Unaccounted-For Use for Current Users (by year for 1980, 1990, 2000, and 2020)
DMS80/ADMSXX = Domestic meter slippage
NDMS80/ANDMSXX = Nondomestic meter slippage
UMPXX = Unmetered public use
RUAF80 = Residual unaccounted-for
PRUAFXX = Residual unaccounted-for without leakage recovery
RECDLEAK = Leakage recovered by 1990
MRXX = Metering ratio (metered use divided by total supply)

C-3.2 Components of Unaccounted-for Use for Potential Users (by year for 1980, 1990, 2000, and 2020).

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
1- 51 BOSTON		INCOME CLASS =	1		
TOTAL POPULATION	641071.	552994.	576082.	582171.	592440.
N-INS POP - MDC	601931.	523476.	533546.	537342.	542380.
INSTITU POP	39140.	39518.	42536.	44828.	50060.
HOUSEHOLD SIZE	2.770	2.400	2.319	2.290	2.252
TOTAL HOUSEHOLDS	217522.	213457.	230102.	234685.	240355.
SINGLE FAMILY	19441.	19458.	19692.	19785.	19909.
SMALL MULT-FAM	106523.	106557.	107028.	107213.	107463.
LARGE MULT-FAM	91558.	92442.	103381.	107687.	113483.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	12032.	13050.	12086.	11625.	11423.
DOM NON SEASNL	11306.	11831.	11200.	10730.	10516.
ADJ SEASNL USE	726.	1060.	886.	895.	907.
2- 52 BROOKLINE		INCOME CLASS =	3		
TOTAL POPULATION	58386.	55062.	57553.	58283.	60314.
N-INS POP - MDC	56221.	52854.	55176.	55783.	57517.
INSTITU POP	2565.	2208.	2377.	2505.	2797.
HOUSEHOLD SIZE	2.470	2.240	2.164	2.137	2.102
TOTAL HOUSEHOLDS	22810.	23601.	25495.	26103.	27366.
SINGLE FAMILY	4514.	4565.	4687.	4726.	4808.
SMALL MULT-FAM	6597.	6601.	6612.	6616.	6623.
LARGE MULT-FAM	11699.	12435.	14196.	14761.	15936.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1314.	1807.	1700.	1647.	1661.
DOM NON SEASNL	1197.	1607.	1549.	1494.	1506.
ADJ SEASNL USE	116.	174.	151.	153.	156.
3- 61 CAMBRIDGE		INCOME CLASS =	2		
TOTAL POPULATION	100361.	95332.	98317.	100269.	104561.
N-INS POP - MDC	88514.	82898.	84933.	86164.	88910.
INSTITU POP	11847.	12434.	13384.	14105.	15751.
HOUSEHOLD SIZE	2.430	2.130	2.058	2.032	1.999
TOTAL HOUSEHOLDS	36411.	38836.	41272.	42402.	44487.
SINGLE FAMILY	2713.	2892.	3071.	3155.	3308.
SMALL MULT-FAM	15727.	15793.	15860.	15891.	15948.
LARGE MULT-FAM	17971.	20151.	22341.	23357.	25231.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1945.	1900.	1650.	1617.	1641.
DOM NON SEASNL	1816.	1324.	1251.	1211.	1222.
ADJ SEASNL USE	129.	501.	399.	406.	420.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
4- 62 ARLINGTON		INCOME CLASS =	2		
TOTAL POPULATION	53524.	48219.	47844.	49506.	52869.
N-INS POP - MDC	53182.	47902.	47503.	49147.	52467.
INSTITU POP	342.	317.	341.	360.	402.
HOUSEHOLD SIZE	3.020	2.580	2.493	2.461	2.421
TOTAL HOUSEHOLDS	17626.	18552.	19057.	19967.	21674.
SINGLE FAMILY	7673.	7804.	7875.	8003.	8244.
SMALL MULT-FAM	6886.	7007.	7073.	7192.	7415.
LARGE MULT-FAM	3067.	3741.	4109.	4772.	6015.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1151.	1164.	1073.	1062.	1109.
DOM NON SEASNL	1058.	1045.	975.	962.	1005.
ADJ SEASNL USE	93.	103.	98.	100.	104.
5- 63 BELMONT		INCOME CLASS =	3		
TOTAL POPULATION	28235.	26100.	27214.	28672.	30641.
N-INS POP - MDC	27896.	25672.	26754.	28187.	30099.
INSTITU POP	389.	428.	461.	486.	542.
HOUSEHOLD SIZE	2.990	2.640	2.551	2.519	2.477
TOTAL HOUSEHOLDS	9323.	9724.	10489.	11191.	12151.
SINGLE FAMILY	4424.	4489.	4612.	4725.	4880.
SMALL MULT-FAM	4615.	4669.	4773.	4868.	4998.
LARGE MULT-FAM	284.	566.	1104.	1598.	2273.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	676.	681.	662.	667.	694.
DOM NON SEASNL	600.	573.	567.	570.	595.
ADJ SEASNL USE	76.	94.	95.	96.	99.
6- 71 MALDEN		INCOME CLASS =	1		
TOTAL POPULATION	56127.	53380.	53490.	56221.	61845.
N-INS POP - MDC	55229.	52766.	52829.	55525.	61067.
INSTITU POP	898.	614.	661.	697.	778.
HOUSEHOLD SIZE	3.000	2.540	2.454	2.423	2.383
TOTAL HOUSEHOLDS	18802.	20746.	21528.	22914.	25623.
SINGLE FAMILY	5099.	5201.	5243.	5316.	5459.
SMALL MULT-FAM	9923.	9975.	9996.	10033.	10106.
LARGE MULT-FAM	3780.	5569.	6289.	7565.	10058.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1210.	1091.	1013.	1020.	1105.
DOM NON SEASNL	1135.	1010.	949.	953.	1033.
ADJ SEASNL USE	75.	70.	63.	66.	72.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
7- 72 EVERETT		INCOME CLASS =	1		
TOTAL POPULATION	42485.	37195.	36928.	37642.	39483.
N-INS POP - MDC	42036.	37026.	36747.	37451.	39269.
INSTITU POP	449.	169.	182.	192.	214.
HOUSEHOLD SIZE	3.050	2.600	2.512	2.480	2.440
TOTAL HOUSEHOLDS	13751.	14139.	14529.	15093.	16097.
SINGLE FAMILY	2374.	2938.	3020.	3100.	3268.
SMALL MULT-FAM	9457.	9503.	9563.	9621.	9743.
LARGE MULT-FAM	1430.	1698.	2045.	2378.	3085.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	846.	803.	740.	723.	742.
DOM NON SEASNL	795.	661.	622.	603.	617.
ADJ SEASNL USE	51.	123.	118.	120.	125.
8- 73 MELROSE		INCOME CLASS =	2		
TOTAL POPULATION	33180.	30055.	32035.	32658.	35135.
N-INS POP - MDC	32745.	29686.	31637.	32239.	34668.
INSTITU POP	435.	369.	397.	419.	467.
HOUSEHOLD SIZE	3.260	2.790	2.696	2.662	2.618
TOTAL HOUSEHOLDS	10043.	10649.	11737.	12112.	13243.
SINGLE FAMILY	6243.	6355.	6555.	6624.	6833.
SMALL MULT-FAM	2365.	2373.	2387.	2392.	2406.
LARGE MULT-FAM	1435.	1922.	2795.	3096.	4004.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	721.	700.	690.	674.	709.
DOM NON SEASNL	658.	598.	602.	585.	615.
ADJ SEASNL USE	63.	89.	88.	89.	93.
9- 74 WAKEFIELD		INCOME CLASS =	2		
TOTAL POPULATION	25402.	24895.	28156.	29253.	31247.
N-INS POP - MDC	25054.	24529.	27762.	28838.	30783.
INSTITU POP	348.	366.	394.	415.	464.
HOUSEHOLD SIZE	3.250	2.840	2.744	2.709	2.665
TOTAL HOUSEHOLDS	7699.	8650.	10118.	10644.	11552.
SINGLE FAMILY	5079.	5311.	5670.	5798.	6020.
SMALL MULT-FAM	2029.	2045.	2070.	2079.	2095.
LARGE MULT-FAM	591.	1293.	2378.	2766.	3437.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	595.	672.	703.	702.	734.
DOM NON SEASNL	543.	578.	619.	616.	644.
ADJ SEASNL USE	52.	82.	84.	86.	89.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
16-101 SOMERVILLE		INCOME CLASS =	1		
TOTAL POPULATION	88779.	77372.	77598.	79575.	83994.
N-INS POP - MDC	86383.	75252.	75316.	77170.	81309.
INSTITU POP	1396.	2120.	2282.	2405.	2686.
HOUSEHOLD SIZE	3.000	2.530	2.444	2.414	2.374
TOTAL HOUSEHOLDS	28999.	29687.	30812.	31972.	34252.
SINGLE FAMILY	2241.	2247.	2258.	2269.	2290.
SMALL MULT-FAM	20834.	20846.	20867.	20888.	20929.
LARGE MULT-FAM	5924.	6593.	7688.	8816.	11033.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1720.	2414.	2339.	2266.	2328.
DCM NON SEASNL	1519.	2848.	2684.	2619.	2699.
ADJ SEASNL USE	101.	-377.	-345.	-353.	-370.
17-111 BROCKTON		INCOME CLASS =	1		
TOTAL POPULATION	89040.	95172.	102967.	108490.	111567.
N-INS POP - MDC	88506.	94723.	102561.	108025.	110902.
INSTITU POP	2259.	2306.	2465.	2635.	2395.
HOUSEHOLD SIZE	3.130	2.820	2.725	2.690	2.646
TOTAL HOUSEHOLDS	28242.	33614.	37644.	40153.	41914.
SINGLE FAMILY	13013.	14886.	16290.	17165.	17778.
SMALL MULT-FAM	10450.	10477.	10498.	10510.	10519.
LARGE MULT-FAM	4779.	8251.	10856.	12478.	13616.
PCT SERVD BY MDC	1.020	1.020	1.020	1.020	1.020
TOTAL DOM. WAT U	2162.	2455.	2503.	2530.	2537.
DCM NON SEASNL	2024.	2317.	2368.	2389.	2393.
ADJ SEASNL USE	137.	138.	135.	140.	144.
18-113 AVON		INCOME CLASS =	2		
TOTAL POPULATION	5295.	5026.	5694.	6158.	7136.
N-INS POP - MDC	5295.	5026.	5694.	6158.	7136.
INSTITU POP	0.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.730	3.150	3.043	3.005	2.956
TOTAL HOUSEHOLDS	1421.	1595.	1871.	2049.	2415.
SINGLE FAMILY	1130.	1260.	1467.	1600.	1873.
SMALL MULT-FAM	287.	313.	354.	380.	434.
LARGE MULT-FAM	4.	22.	51.	69.	107.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	122.	94.	101.	105.	118.
DCM NON SEASNL	111.	83.	89.	92.	105.
ADJ SEASNL USE	11.	11.	12.	12.	13.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
10- 31 MEDFORD		INCOME CLASS =	2		
TOTAL POPULATION	64397.	58076.	58374.	61330.	68273.
N-INS POP - MDC	66061.	60034.	60327.	63377.	70545.
INSTITU POP	2075.	1440.	1550.	1634.	1924.
HOUSEHOLD SIZE	3.190	2.800	2.705	2.671	2.627
TOTAL HOUSEHOLDS	20720.	21418.	22300.	23725.	26852.
SINGLE FAMILY	7904.	8006.	8135.	8342.	8797.
SMALL MULT-FAM	10969.	10986.	11008.	11043.	11120.
LARGE MULT-FAM	1847.	2426.	3158.	4340.	6934.
PCT SERVD BY MDC	1.060	1.060	1.060	1.060	1.060
TOTAL DOM. WAT U	1420.	1292.	1233.	1238.	1350.
DOM NON SEASNL	1313.	1191.	1135.	1136.	1242.
ADJ SEASNL USE	107.	101.	98.	102.	109.
11- 91 NEWTON		INCOME CLASS =	3		
TOTAL POPULATION	91263.	83622.	85165.	87425.	92204.
N-INS POP - MDC	86268.	78812.	79988.	81969.	86111.
INSTITU POP	4995.	4810.	5177.	5456.	6093.
HOUSEHOLD SIZE	3.190	2.770	2.676	2.643	2.599
TOTAL HOUSEHOLDS	25958.	28464.	29388.	31018.	33132.
SINGLE FAMILY	16698.	16925.	17140.	17310.	17629.
SMALL MULT-FAM	7944.	8101.	8250.	8368.	8589.
LARGE MULT-FAM	2316.	3438.	4499.	5340.	6914.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	2131.	2196.	2052.	2018.	2061.
DOM NON SEASNL	1871.	1633.	1569.	1530.	1565.
ADJ SEASNL USE	260.	490.	484.	488.	497.
12- 92 NEEDHAM		INCOME CLASS =	3		
TOTAL POPULATION	29748.	27901.	30200.	31358.	33015.
N-INS POP - MDC	29635.	27633.	29912.	31054.	32677.
INSTITU POP	113.	268.	288.	304.	339.
HOUSEHOLD SIZE	3.440	2.950	2.850	2.814	2.768
TOTAL HOUSEHOLDS	8510.	9359.	10495.	11034.	11905.
SINGLE FAMILY	7567.	8058.	8802.	9155.	9660.
SMALL MULT-FAM	325.	838.	858.	867.	881.
LARGE MULT-FAM	218.	463.	835.	1012.	1265.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	737.	769.	751.	748.	765.
DOM NON SEASNL	677.	520.	531.	526.	539.
ADJ SEASNL USE	110.	217.	220.	222.	226.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
13- 93 WATERTOWN		INCOME CLASS =	2		
TOTAL POPULATION	39307.	34384.	34213.	36624.	40696.
N-INS POP - MDC	38516.	33694.	33470.	35841.	39822.
INSTITU POP	791.	690.	743.	783.	874.
HOUSEHOLD SIZE	3.040	2.540	2.454	2.423	2.383
TOTAL HOUSEHOLDS	12553.	13261.	13639.	14791.	16709.
SINGLE FAMILY	3782.	3799.	3810.	3842.	3897.
SMALL MULT-FAM	7297.	7447.	7541.	7825.	8299.
LARGE MULT-FAM	1574.	2015.	2289.	3123.	4514.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	798.	830.	763.	785.	856.
DOM NON SEASNL	739.	688.	645.	662.	724.
ADJ SEASNL USE	59.	123.	118.	123.	132.
14- 94 WELLESLEY		INCOME CLASS =	3		
TOTAL POPULATION	28051.	27209.	27451.	28196.	29494.
N-INS POP - MDC	25597.	23547.	23478.	24024.	24874.
INSTITU POP	2442.	3181.	3424.	3608.	4030.
HOUSEHOLD SIZE	3.270	2.350	2.754	2.719	2.674
TOTAL HOUSEHOLDS	7659.	8262.	8527.	8836.	9302.
SINGLE FAMILY	6650.	6949.	7080.	7233.	7464.
SMALL MULT-FAM	576.	580.	581.	583.	586.
LARGE MULT-FAM	432.	734.	865.	1020.	1253.
PCT SERVD BY MDC	0.980	0.980	0.980	0.980	0.980
TOTAL DOM. WAT U	674.	659.	628.	614.	618.
DOM NON SEASNL	579.	562.	532.	517.	521.
ADJ SEASNL USE	95.	97.	96.	97.	98.
15- 1 ATHOL		INCOME CLASS =	1		
TOTAL POPULATION	11185.	10643.	11151.	11289.	13016.
N-INS POP - MDC	10464.	9931.	10391.	10508.	12129.
INSTITU POP	170.	189.	202.	216.	237.
HOUSEHOLD SIZE	2.910	2.680	2.589	2.557	2.515
TOTAL HOUSEHOLDS	3614.	3699.	4013.	4110.	4823.
SINGLE FAMILY	2067.	2151.	2459.	2554.	3254.
SMALL MULT-FAM	1187.	1187.	1187.	1187.	1187.
LARGE MULT-FAM	360.	362.	367.	369.	382.
PCT SERVD BY MDC	0.950	0.950	0.950	0.950	0.950
TOTAL DOM. WAT U	228.	160.	159.	154.	176.
DOM NON SEASNL	213.	144.	143.	138.	158.
ADJ SEASNL USE	15.	16.	16.	16.	18.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
16-101 SOMERVILLE		INCOME CLASS =	1		
TOTAL POPULATION	88779.	77372.	77598.	79575.	83994.
N-INS POP - MDC	86383.	75252.	75316.	77170.	81309.
INSTITU POP	1396.	2120.	2282.	2405.	2686.
HOUSEHOLD SIZE	3.000	2.530	2.444	2.414	2.374
TOTAL HOUSEHOLDS	28999.	29687.	30812.	31972.	34252.
SINGLE FAMILY	2241.	2247.	2258.	2269.	2290.
SMALL MULT-FAM	20834.	20846.	20867.	20888.	20929.
LARGE MULT-FAM	5924.	6593.	7688.	8816.	11033.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1720.	2414.	2339.	2266.	2328.
DCM NON SEASNL	1519.	2848.	2684.	2619.	2699.
ADJ SEASNL USE	101.	-377.	-345.	-353.	-370.
17-111 BROCKTON		INCOME CLASS =	1		
TOTAL POPULATION	89040.	95172.	102967.	108490.	111567.
N-INS POP - MDC	88506.	94723.	102561.	108025.	110902.
INSTITU POP	2269.	2306.	2465.	2635.	2896.
HOUSEHOLD SIZE	3.130	2.820	2.725	2.690	2.646
TOTAL HOUSEHOLDS	28242.	33614.	37644.	40153.	41914.
SINGLE FAMILY	13013.	14886.	16290.	17165.	17778.
SMALL MULT-FAM	10450.	10477.	10498.	10510.	10519.
LARGE MULT-FAM	4779.	8251.	10856.	12478.	13616.
PCT SERVD BY MDC	1.020	1.020	1.020	1.020	1.020
TOTAL DOM. WAT U	2162.	2455.	2503.	2530.	2537.
DCM NON SEASNL	2024.	2317.	2368.	2389.	2393.
ADJ SEASNL USE	137.	138.	135.	140.	144.
13-113 AVON		INCOME CLASS =	2		
TOTAL POPULATION	5295.	5026.	5694.	6158.	7136.
N-INS POP - MDC	5295.	5026.	5694.	6158.	7136.
INSTITU POP	0.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.730	3.150	3.043	3.005	2.956
TOTAL HOUSEHOLDS	1421.	1595.	1871.	2049.	2415.
SINGLE FAMILY	1130.	1260.	1467.	1600.	1873.
SMALL MULT-FAM	287.	313.	354.	380.	434.
LARGE MULT-FAM	4.	22.	51.	69.	107.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	122.	94.	101.	105.	118.
DCM NON SEASNL	111.	83.	89.	92.	105.
ADJ SEASNL USE	11.	11.	12.	12.	13.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
19-118 EASTON		INCOME CLASS =	2		
TOTAL POPULATION	12157.	16523.	17747.	20833.	26736.
N-INS POP - MDC	11252.	16334.	17437.	20488.	26313.
INSTITU POP	791.	124.	133.	142.	156.
HOUSEHOLD SIZE	3.560	3.080	2.976	2.938	2.890
TOTAL HOUSEHOLDS	3157.	4951.	5860.	6973.	9105.
SINGLE FAMILY	2669.	3610.	4087.	4671.	5791.
SMALL MULT-FAM	367.	422.	449.	483.	547.
LARGE MULT-FAM	122.	920.	1324.	1819.	2767.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	393.	303.	309.	347.	435.
DOM NON SEASNL	359.	261.	267.	301.	382.
ADJ SEASNL USE	34.	42.	42.	46.	53.
20-123 HOLBROOK		INCOME CLASS =	2		
TOTAL POPULATION	11775.	11140.	13108.	14965.	17477.
N-INS POP - MDC	11723.	11097.	13063.	14818.	17427.
INSTITU POP	52.	43.	45.	47.	50.
HOUSEHOLD SIZE	3.590	3.220	3.111	3.072	3.021
TOTAL HOUSEHOLDS	3174.	3443.	4199.	4824.	5768.
SINGLE FAMILY	2540.	2890.	3591.	4171.	5048.
SMALL MULT-FAM	362.	381.	436.	480.	548.
LARGE MULT-FAM	172.	172.	172.	172.	172.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	271.	206.	229.	249.	286.
DOM NON SEASNL	246.	181.	202.	220.	255.
ADJ SEASNL USE	25.	25.	27.	29.	31.
21-130 RANDOLPH		INCOME CLASS =	2		
TOTAL POPULATION	27035.	28218.	31609.	33783.	35848.
N-INS POP - MDC	26763.	27968.	31342.	33497.	35534.
INSTITU POP	272.	250.	267.	286.	314.
HOUSEHOLD SIZE	3.670	2.970	2.869	2.833	2.787
TOTAL HOUSEHOLDS	7291.	9406.	10923.	11922.	12751.
SINGLE FAMILY	5342.	6518.	7004.	7291.	7588.
SMALL MULT-FAM	751.	1148.	1432.	1601.	1775.
LARGE MULT-FAM	598.	1740.	2487.	2930.	3388.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	580.	582.	613.	629.	653.
DOM NON SEASNL	520.	522.	552.	566.	587.
ADJ SEASNL USE	60.	60.	61.	63.	65.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
22-133 STOUGHTON		INCOME CLASS =	2		
TOTAL POPULATION	23459.	26710.	30474.	33090.	36428.
N-INS POP - MDC	23019.	26123.	29824.	32390.	35658.
INSTITU POP	207.	323.	345.	369.	406.
HOUSEHOLD SIZE	3.640	3.040	2.937	2.900	2.852
TOTAL HOUSEHOLDS	6309.	8595.	10154.	11168.	12501.
SINGLE FAMILY	4559.	5252.	5656.	5919.	6265.
SMALL MULT-FAM	995.	1038.	1067.	1085.	1110.
LARGE MULT-FAM	554.	2306.	3432.	4164.	5126.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	628.	672.	718.	749.	809.
DOM NON SEASNL	575.	619.	664.	693.	749.
ADJ SEASNL USE	53.	53.	53.	56.	59.
23-135 WHITMAN		INCOME CLASS =	2		
TOTAL POPULATION	13059.	13534.	14614.	15805.	17338.
N-INS POP - MDC	12959.	13392.	14463.	15643.	17159.
INSTITU POP	100.	142.	152.	162.	178.
HOUSEHOLD SIZE	3.430	3.140	3.034	2.996	2.946
TOTAL HOUSEHOLDS	3772.	4008.	4767.	5222.	5824.
SINGLE FAMILY	2502.	2737.	3492.	3944.	4544.
SMALL MULT-FAM	1056.	1057.	1061.	1063.	1066.
LARGE MULT-FAM	214.	214.	214.	214.	214.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	320.	197.	206.	213.	228.
DOM NON SEASNL	293.	165.	172.	178.	191.
ADJ SEASNL USE	27.	32.	34.	35.	37.
24-141 CHELSEA		INCOME CLASS =	1		
TOTAL POPULATION	30525.	25431.	24028.	25055.	26969.
N-INS POP - MDC	29008.	24850.	23403.	24396.	26233.
INSTITU POP	1517.	581.	625.	659.	736.
HOUSEHOLD SIZE	2.910	2.560	2.473	2.442	2.402
TOTAL HOUSEHOLDS	9929.	9715.	9462.	9989.	10921.
SINGLE FAMILY	418.	413.	406.	419.	443.
SMALL MULT-FAM	7025.	7023.	7022.	7025.	7032.
LARGE MULT-FAM	2486.	2279.	2034.	2544.	3447.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	567.	657.	581.	565.	598.
DOM NON SEASNL	534.	577.	515.	503.	531.
ADJ SEASNL USE	33.	70.	67.	62.	67.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
25-142 REVERE		INCOME CLASS =		1	
TOTAL POPULATION	43159.	42423.	42733.	44281.	47405.
N-INS POP - MDC	42313.	42079.	42363.	43891.	46969.
INSTITU POP	346.	344.	370.	390.	436.
HOUSEHOLD SIZE	3.050	2.570	2.483	2.452	2.411
TOTAL HOUSEHOLDS	14026.	16367.	17061.	17901.	19478.
SINGLE FAMILY	5060.	5379.	5474.	5589.	5804.
SMALL MULT-FAM	7415.	7588.	7639.	7702.	7818.
LARGE MULT-FAM	1551.	3399.	3948.	4611.	5856.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	966.	857.	808.	800.	840.
DOM NON SEASNL	904.	820.	778.	769.	807.
ADJ SEASNL USE	61.	32.	30.	31.	33.
26-143 WINTHROP		INCOME CLASS =		1	
TOTAL POPULATION	20335.	19294.	19988.	20478.	21527.
N-INS POP - MDC	19994.	19015.	19687.	20162.	21174.
INSTITU POP	341.	279.	300.	316.	353.
HOUSEHOLD SIZE	3.130	2.570	2.483	2.452	2.411
TOTAL HOUSEHOLDS	6392.	7390.	7929.	8223.	8781.
SINGLE FAMILY	1982.	2017.	2035.	2046.	2065.
SMALL MULT-FAM	3519.	3532.	3538.	3542.	3549.
LARGE MULT-FAM	891.	1842.	2355.	2635.	3167.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	436.	518.	499.	489.	503.
DOM NON SEASNL	409.	478.	466.	456.	468.
ADJ SEASNL USE	27.	35.	32.	33.	35.
27-151 FITCHBURG		INCOME CLASS =		1	
TOTAL POPULATION	43343.	39580.	40933.	43045.	46018.
N-INS POP - MDC	41397.	37781.	39010.	40989.	43759.
INSTITU POP	1946.	1799.	1923.	2056.	2259.
HOUSEHOLD SIZE	2.990	2.640	2.551	2.519	2.477
TOTAL HOUSEHOLDS	14034.	14323.	15294.	16274.	17666.
SINGLE FAMILY	4519.	4762.	5243.	5728.	6417.
SMALL MULT-FAM	7061.	7064.	7073.	7083.	7096.
LARGE MULT-FAM	2354.	2497.	2978.	3463.	4152.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	865.	806.	786.	792.	830.
DOM NON SEASNL	811.	740.	723.	726.	760.
ADJ SEASNL USE	55.	66.	64.	66.	70.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
28-166 CLINTON		INCOME CLASS =	1		
TOTAL POPULATION	13383.	12771.	13626.	13782.	14401.
N-INS POP - MDC	12416.	11902.	12691.	12831.	13399.
INSTITU POP	174.	109.	117.	124.	138.
HOUSEHOLD SIZE	3.120	2.720	2.628	2.595	2.552
TOTAL HOUSEHOLDS	3975.	4382.	4829.	4945.	5250.
SINGLE FAMILY	1726.	1809.	1900.	1924.	1986.
SMALL MULT-FAM	1669.	1687.	1706.	1711.	1725.
LARGE MULT-FAM	580.	886.	1223.	1309.	1539.
PCT SERVD BY MDC	0.940	0.940	0.940	0.940	0.940
TOTAL DOM. WAT U	272.	386.	377.	367.	375.
DOM NON SEASNL	255.	312.	315.	303.	309.
ADJ SEASNL USE	17.	64.	63.	64.	66.
29-170 LANCASTER		INCOME CLASS =	1		
TOTAL POPULATION	6095.	6334.	8624.	9800.	11995.
N-INS POP - MDC	4786.	5461.	7477.	8516.	10461.
INSTITU POP	777.	266.	284.	304.	334.
HOUSEHOLD SIZE	3.330	3.050	2.947	2.910	2.862
TOTAL HOUSEHOLDS	1437.	1680.	2537.	2927.	3656.
SINGLE FAMILY	975.	1218.	2075.	2464.	3193.
SMALL MULT-FAM	347.	347.	347.	347.	347.
LARGE MULT-FAM	115.	115.	115.	115.	115.
PCT SERVD BY MDC	0.900	0.900	0.900	0.900	0.900
TOTAL DOM. WAT U	124.	148.	196.	217.	264.
DOM NON SEASNL	116.	137.	182.	201.	246.
ADJ SEASNL USE	8.	11.	14.	15.	18.
30-172 LEOMINSTER		INCOME CLASS =	1		
TOTAL POPULATION	32939.	34508.	46263.	52287.	67671.
N-INS POP - MDC	29816.	31372.	42123.	47642.	61740.
INSTITU POP	530.	408.	439.	463.	517.
HOUSEHOLD SIZE	3.240	2.720	2.628	2.595	2.552
TOTAL HOUSEHOLDS	9217.	11521.	16029.	18360.	24192.
SINGLE FAMILY	4565.	5155.	6308.	6905.	8398.
SMALL MULT-FAM	3335.	3355.	3394.	3415.	3465.
LARGE MULT-FAM	1317.	3011.	6326.	8040.	12328.
PCT SERVD BY MDC	0.920	0.920	0.920	0.920	0.920
TOTAL DOM. WAT U	718.	700.	891.	981.	1274.
DOM NON SEASNL	672.	650.	833.	918.	1195.
ADJ SEASNL USE	46.	50.	57.	63.	79.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
31-177 STERLING		INCOME CLASS =	2		
TOTAL POPULATION	4247.	5540.	8329.	11151.	16741.
N-INS POP - MDC	2888.	3767.	5664.	7583.	11384.
INSTITU POP	0.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.510	3.140	3.034	2.996	2.946
TOTAL HOUSEHOLDS	823.	1177.	1867.	2531.	3864.
SINGLE FAMILY	724.	1066.	1732.	2373.	3660.
SMALL MULT-FAM	75.	87.	111.	134.	180.
LARGE MULT-FAM	24.	24.	24.	24.	24.
PCT SERVD BY MDC	0.680	0.680	0.680	0.680	0.680
TOTAL DOM. WAT U	93.	114.	159.	205.	302.
DOM NON SEASNL	84.	99.	141.	183.	274.
ADJ SEASNL USE	9.	15.	18.	21.	28.
32-223 SOUTH HADLEY FD1		INCOME CLASS =	2		
TOTAL POPULATION	10772.	10127.	11284.	12176.	13832.
N-INS POP - MDC	11206.	10514.	11725.	12655.	14378.
INSTITU POP	89.	104.	112.	118.	132.
HOUSEHOLD SIZE	3.230	2.710	2.618	2.585	2.543
TOTAL HOUSEHOLDS	3478.	3880.	4478.	4895.	5655.
SINGLE FAMILY	1811.	2013.	2313.	2523.	2905.
SMALL MULT-FAM	1138.	1138.	1138.	1138.	1138.
LARGE MULT-FAM	530.	730.	1027.	1234.	1612.
PCT SERVD BY MDC	1.049	1.049	1.049	1.049	1.049
TOTAL DOM. WAT U	254.	354.	362.	376.	419.
DOM NON SEASNL	233.	288.	304.	315.	353.
ADJ SEASNL USE	21.	57.	58.	61.	66.
33-234 NORTH ANDOVER		INCOME CLASS =	3		
TOTAL POPULATION	16234.	20129.	17937.	22562.	32384.
N-INS POP - MDC	15360.	19051.	16784.	21331.	31031.
INSTITU POP	924.	1078.	1152.	1232.	1354.
HOUSEHOLD SIZE	3.260	2.820	2.725	2.690	2.646
TOTAL HOUSEHOLDS	4714.	6756.	6161.	7929.	11727.
SINGLE FAMILY	2491.	3699.	3347.	4393.	6641.
SMALL MULT-FAM	1164.	1326.	1278.	1418.	1719.
LARGE MULT-FAM	1059.	1731.	1535.	2117.	3367.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	506.	653.	551.	654.	921.
DOM NON SEASNL	448.	582.	487.	583.	838.
ADJ SEASNL USE	59.	71.	64.	71.	83.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
34-242 BILLERICA		INCOME CLASS =	2		
TOTAL POPULATION	31648.	36727.	39624.	44995.	54879.
N-INS POP - MDC	31259.	36147.	39004.	44332.	54151.
INSTITU POP	389.	580.	620.	663.	728.
HOUSEHOLD SIZE	3.910	3.400	3.285	3.244	3.190
TOTAL HOUSEHOLDS	7995.	10645.	11874.	13667.	16974.
SINGLE FAMILY	7156.	9806.	11035.	12828.	16135.
SMALL MULT-FAM	682.	682.	682.	682.	682.
LARGE MULT-FAM	157.	157.	157.	157.	157.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	882.	816.	837.	906.	1078.
DOM NON SEASNL	900.	735.	753.	817.	980.
ADJ SEASNL USE	81.	81.	84.	89.	99.
35-243 CHELMSFORD		INCOME CLASS =	2		
TOTAL POPULATION	31432.	31174.	32411.	35473.	40783.
N-INS POP - MDC	30752.	30634.	31840.	34854.	40085.
INSTITU POP	369.	231.	247.	264.	290.
HOUSEHOLD SIZE	3.700	3.230	3.121	3.081	3.031
TOTAL HOUSEHOLDS	8318.	9492.	10203.	11311.	13226.
SINGLE FAMILY	7060.	7918.	8437.	9247.	10647.
SMALL MULT-FAM	577.	584.	588.	595.	606.
LARGE MULT-FAM	681.	990.	1177.	1469.	1974.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	747.	653.	644.	672.	753.
DOM NON SEASNL	679.	574.	565.	590.	665.
ADJ SEASNL USE	68.	79.	79.	82.	89.
36-248 TYNGSBOROUGH		INCOME CLASS =	2		
TOTAL POPULATION	4204.	5683.	7722.	8999.	11406.
N-INS POP - MDC	4122.	5683.	7722.	8999.	11406.
INSTITU POP	82.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.520	3.080	2.976	2.938	2.890
TOTAL HOUSEHOLDS	1171.	1834.	2595.	3063.	3947.
SINGLE FAMILY	1014.	1380.	1801.	2059.	2547.
SMALL MULT-FAM	118.	144.	173.	192.	226.
LARGE MULT-FAM	39.	310.	621.	812.	1173.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	138.	136.	172.	194.	242.
DOM NON SEASNL	126.	122.	156.	176.	222.
ADJ SEASNL USE	12.	14.	16.	17.	20.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
37-251 LYNN		INCOME CLASS =	1		
TOTAL POPULATION	90294.	78471.	76116.	80190.	88644.
N-INS POP - MDC	89023.	77249.	74810.	78793.	87110.
INSTITU POP	1271.	1222.	1306.	1396.	1535.
HOUSEHOLD SIZE	2.870	2.540	2.454	2.423	2.383
TOTAL HOUSEHOLDS	30959.	30421.	30485.	32516.	36551.
SINGLE FAMILY	9370.	9344.	9347.	9446.	9641.
SMALL MULT-FAM	12921.	12905.	12907.	12967.	13087.
LARGE MULT-FAM	8668.	8172.	8231.	10103.	13822.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1775.	3214.	2893.	2927.	3190.
DOM NON SEASNL	1662.	3101.	2794.	2823.	3077.
ADJ SEASNL USE	113.	113.	99.	104.	113.
33-252 LYNNFIELD WD		INCOME CLASS =	3		
TOTAL POPULATION	3248.	3380.	3884.	4087.	4470.
N-INS POP - MDC	3244.	3380.	3884.	4087.	4470.
INSTITU POP	4.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.630	3.200	3.092	3.053	3.003
TOTAL HOUSEHOLDS	891.	1057.	1256.	1339.	1489.
SINGLE FAMILY	871.	1037.	1236.	1319.	1469.
SMALL MULT-FAM	20.	20.	20.	20.	20.
LARGE MULT-FAM	0.	0.	0.	0.	0.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	97.	79.	83.	84.	89.
DOM NON SEASNL	83.	70.	75.	76.	81.
ADJ SEASNL USE	14.	8.	8.	8.	8.
39-253 NAHANT		INCOME CLASS =	2		
TOTAL POPULATION	4119.	3947.	4279.	4384.	4585.
N-INS POP - MDC	4119.	3825.	4148.	4245.	4431.
INSTITU POP	0.	122.	131.	138.	155.
HOUSEHOLD SIZE	3.220	2.670	2.580	2.547	2.505
TOTAL HOUSEHOLDS	1235.	1433.	1608.	1667.	1769.
SINGLE FAMILY	1136.	1174.	1207.	1218.	1237.
SMALL MULT-FAM	69.	69.	69.	69.	69.
LARGE MULT-FAM	30.	190.	332.	380.	462.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	96.	109.	110.	109.	110.
DOM NON SEASNL	86.	94.	97.	94.	96.
ADJ SEASNL USE	10.	13.	13.	13.	14.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
40-254 SAUGUS		INCOME CLASS =	2		
TOTAL POPULATION	25110.	24766.	26420.	28320.	37124.
N-INS POP - MDC	25016.	24568.	26207.	28095.	36873.
INSTITU POP	94.	198.	213.	225.	251.
HOUSEHOLD SIZE	3.460	3.000	2.898	2.862	2.815
TOTAL HOUSEHOLDS	7226.	8186.	9042.	9817.	13099.
SINGLE FAMILY	5741.	6152.	6518.	6850.	8255.
SMALL MULT-FAM	1294.	1383.	1462.	1534.	1838.
LARGE MULT-FAM	191.	651.	1062.	1433.	3007.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	600.	600.	601.	616.	795.
DOM NON SEASNL	546.	554.	561.	574.	746.
ADJ SEASNL USE	55.	40.	41.	42.	49.
41-255 SWAMPSCOTT		INCOME CLASS =	3		
TOTAL POPULATION	13578.	13837.	14898.	15421.	16346.
N-INS POP - MDC	13549.	13660.	14708.	15220.	16122.
INSTITU POP	29.	177.	191.	201.	224.
HOUSEHOLD SIZE	3.150	2.700	2.609	2.576	2.533
TOTAL HOUSEHOLDS	4308.	5057.	5638.	5909.	6364.
SINGLE FAMILY	2983.	3087.	3168.	3205.	3269.
SMALL MULT-FAM	1194.	1241.	1278.	1295.	1324.
LARGE MULT-FAM	131.	729.	1192.	1408.	1771.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	373.	438.	444.	440.	454.
DOM NON SEASNL	326.	395.	401.	396.	410.
ADJ SEASNL USE	47.	43.	43.	44.	45.
42-261 MARLBOROUGH		INCOME CLASS =	1		
TOTAL POPULATION	27936.	30617.	35881.	38839.	43118.
N-INS POP - MDC	27110.	29682.	34838.	37730.	41882.
INSTITU POP	552.	635.	684.	720.	804.
HOUSEHOLD SIZE	3.280	2.740	2.647	2.614	2.571
TOTAL HOUSEHOLDS	8273.	10816.	13160.	14434.	16291.
SINGLE FAMILY	4315.	5167.	5953.	6380.	7002.
SMALL MULT-FAM	2214.	2258.	2300.	2322.	2355.
LARGE MULT-FAM	1744.	3390.	4908.	5732.	6934.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	579.	831.	918.	960.	1054.
DOM NON SEASNL	635.	786.	872.	912.	1000.
ADJ SEASNL USE	44.	45.	46.	49.	53.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
43-262 AHSLAND		INCOME CLASS =		2	
TOTAL POPULATION	8382.	9165.	11286.	13145.	16436.
N-INS POP - MDC	8914.	9207.	11346.	13220.	16539.
INSTITU POP	56.	49.	52.	56.	62.
HOUSEHOLD SIZE	3.620	2.960	2.860	2.824	2.777
TOTAL HOUSEHOLDS	2452.	3113.	3968.	4682.	5955.
SINGLE FAMILY	2090.	2691.	3481.	4140.	5317.
SMALL MULT-FAM	335.	385.	450.	504.	601.
LARGE MULT-FAM	37.	37.	37.	37.	37.
PCT SERVD BY MDC	1.010	1.010	1.010	1.010	1.010
TOTAL DOM. WAT U	228.	319.	372.	416.	512.
DOM NON SEASNL	206.	295.	345.	388.	480.
ADJ SEASNL USE	22.	24.	26.	28.	32.
44-265 FRAMINGHAM		INCOME CLASS =		2	
TOTAL POPULATION	64048.	65113.	73845.	75629.	78015.
N-INS POP - MDC	61149.	61803.	70282.	71875.	73822.
INSTITU POP	2899.	3310.	3563.	3755.	4193.
HOUSEHOLD SIZE	3.380	2.580	2.493	2.461	2.421
TOTAL HOUSEHOLDS	18091.	23943.	28196.	29201.	30495.
SINGLE FAMILY	11145.	12324.	13337.	13577.	13885.
SMALL MULT-FAM	3609.	3747.	3952.	4001.	4063.
LARGE MULT-FAM	4337.	7871.	10906.	11624.	12547.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1503.	1725.	1695.	1682.	1697.
DOM NON SEASNL	1373.	1027.	1098.	1076.	1080.
ADJ SEASNL USE	130.	607.	597.	606.	617.
45-266 HUDSON		INCOME CLASS =		2	
TOTAL POPULATION	16084.	15408.	19384.	21718.	24184.
N-INS POP - MDC	13557.	13911.	15432.	18412.	20503.
INSTITU POP	123.	42.	45.	48.	53.
HOUSEHOLD SIZE	3.600	3.070	2.966	2.929	2.881
TOTAL HOUSEHOLDS	3773.	4522.	5540.	6287.	7118.
SINGLE FAMILY	2477.	2959.	3615.	4096.	4631.
SMALL MULT-FAM	948.	955.	965.	972.	980.
LARGE MULT-FAM	349.	608.	961.	1219.	1507.
PCT SERVD BY MDC	0.850	0.850	0.850	0.850	0.850
TOTAL DOM. WAT U	335.	443.	493.	531.	580.
DOM NON SEASNL	307.	407.	455.	490.	537.
ADJ SEASNL USE	29.	36.	38.	41.	43.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
46-268 NATICK		INCOME CLASS =	2		
TOTAL POPULATION	31057.	29461.	31892.	33982.	36700.
N-INS POP - MDC	31415.	29749.	32214.	34324.	37064.
INSTITU POP	258.	295.	315.	337.	370.
HOUSEHOLD SIZE	3.480	2.870	2.773	2.738	2.693
TOTAL HOUSEHOLDS	9035.	10372.	11618.	12536.	13764.
SINGLE FAMILY	7086.	7326.	7550.	7715.	7936.
SMALL MULT-FAM	1422.	1439.	1456.	1468.	1484.
LARGE MULT-FAM	527.	1607.	2612.	3353.	4344.
PCT SERVD BY MDC	1.020	1.020	1.020	1.020	1.020
TOTAL DOM. WAT U	728.	994.	1016.	1037.	1096.
DOM NON SEASNL	662.	929.	951.	970.	1026.
ADJ SEASNL USE	66.	65.	65.	68.	70.
47-269 NORTHBOROUGH		INCOME CLASS =	2		
TOTAL POPULATION	9218.	10568.	12764.	14076.	16445.
N-INS POP - MDC	7374.	8349.	10069.	11111.	12989.
INSTITU POP	0.	132.	142.	150.	167.
HOUSEHOLD SIZE	3.710	3.130	3.072	3.034	2.984
TOTAL HOUSEHOLDS	1965.	2626.	3277.	3662.	4353.
SINGLE FAMILY	1589.	2162.	2726.	3060.	3658.
SMALL MULT-FAM	258.	268.	277.	283.	293.
LARGE MULT-FAM	118.	197.	274.	320.	402.
PCT SERVD BY MDC	0.800	0.800	0.800	0.800	0.800
TOTAL DOM. WAT U	204.	173.	196.	207.	237.
DOM NON SEASNL	185.	150.	171.	181.	209.
ADJ SEASNL USE	19.	23.	25.	26.	28.
48-272 SOUTHBOROUGH		INCOME CLASS =	3		
TOTAL POPULATION	5798.	6193.	7843.	8609.	9547.
N-INS POP - MDC	5682.	6068.	7685.	8435.	9355.
INSTITU POP	0.	1.	1.	1.	1.
HOUSEHOLD SIZE	3.660	3.130	3.024	2.986	2.937
TOTAL HOUSEHOLDS	1538.	1937.	2541.	2825.	3185.
SINGLE FAMILY	1357.	1698.	2213.	2454.	2762.
SMALL MULT-FAM	154.	154.	154.	154.	154.
LARGE MULT-FAM	26.	86.	175.	217.	270.
PCT SERVD BY MDC	0.980	0.980	0.980	0.980	0.980
TOTAL DOM. WAT U	171.	129.	146.	153.	165.
DOM NON SEASNL	147.	107.	126.	132.	144.
ADJ SEASNL USE	23.	19.	20.	21.	22.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
49-287 HOPKINTON		INCOME CLASS =	2		
TOTAL POPULATION	5981.	7114.	8267.	9600.	11603.
N-INS POP - MDC	5355.	6376.	7408.	8605.	10405.
INSTITU POP	31.	30.	32.	34.	38.
HOUSEHOLD SIZE	3.550	3.000	2.898	2.862	2.815
TOTAL HOUSEHOLDS	1508.	2126.	2556.	3007.	3697.
SINGLE FAMILY	1315.	1811.	2156.	2518.	3072.
SMALL MULT-FAM	165.	209.	240.	273.	323.
LARGE MULT-FAM	29.	106.	160.	216.	302.
PCT SERVD BY MDC	0.900	0.900	0.900	0.900	0.900
TOTAL DOM. WAT U	157.	155.	170.	189.	224.
DOM NON SEASNL	142.	137.	151.	169.	201.
ADJ SEASNL USE	15.	18.	19.	21.	23.
50-342 AMHERST		INCOME CLASS =	2		
TOTAL POPULATION	26331.	33229.	36130.	38790.	43170.
N-INS POP - MDC	14158.	19216.	20349.	22450.	25201.
INSTITU POP	11874.	13621.	14559.	15564.	17105.
HOUSEHOLD SIZE	2.930	2.630	2.541	2.509	2.468
TOTAL HOUSEHOLDS	4855.	7294.	8205.	8948.	10213.
SINGLE FAMILY	2546.	3188.	3428.	3623.	3956.
SMALL MULT-FAM	1732.	1874.	1927.	1970.	2044.
LARGE MULT-FAM	577.	2232.	2350.	3354.	4212.
PCT SERVD BY MDC	0.980	0.980	0.980	0.980	0.980
TOTAL DOM. WAT U	461.	525.	531.	550.	607.
DOM NON SEASNL	424.	444.	453.	468.	519.
ADJ SEASNL USE	37.	81.	78.	82.	88.
51-361 NORWOOD		INCOME CLASS =	2		
TOTAL POPULATION	30815.	29711.	33698.	35486.	40765.
N-INS POP - MDC	30445.	29103.	33044.	35796.	39994.
INSTITU POP	370.	608.	654.	690.	770.
HOUSEHOLD SIZE	3.350	2.790	2.696	2.662	2.618
TOTAL HOUSEHOLDS	9091.	10419.	12259.	13449.	15278.
SINGLE FAMILY	5332.	5767.	6300.	6644.	7174.
SMALL MULT-FAM	2143.	2259.	2420.	2524.	2683.
LARGE MULT-FAM	1566.	2393.	3540.	4281.	5420.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	703.	615.	636.	663.	727.
DOM NON SEASNL	643.	496.	532.	553.	609.
ADJ SEASNL USE	60.	103.	105.	110.	117.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
52-362 CANTON		INCOME CLASS =	3		
TOTAL POPULATION	17100.	18182.	20755.	22657.	25650.
N-INS POP - MDC	16862.	17898.	20449.	22335.	25290.
INSTITU POP	238.	284.	306.	322.	360.
HOUSEHOLD SIZE	3.690	3.170	3.063	3.024	2.974
TOTAL HOUSEHOLDS	4366.	5638.	6677.	7385.	8503.
SINGLE FAMILY	3510.	4323.	4986.	5439.	6153.
SMALL MULT-FAM	595.	675.	740.	785.	855.
LARGE MULT-FAM	261.	640.	950.	1162.	1495.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	490.	585.	608.	633.	694.
DOM NON SEASNL	427.	483.	517.	539.	596.
ADJ SEASNL USE	62.	89.	91.	94.	98.
53-363 DEDHAM		INCOME CLASS =	2		
TOTAL POPULATION	26938.	25298.	26580.	27789.	29036.
N-INS POP - MDC	26717.	25006.	26268.	27455.	28669.
INSTITU POP	221.	292.	312.	334.	367.
HOUSEHOLD SIZE	3.480	3.020	2.918	2.881	2.834
TOTAL HOUSEHOLDS	7669.	8276.	9003.	9529.	10117.
SINGLE FAMILY	5944.	6444.	7043.	7477.	7962.
SMALL MULT-FAM	1441.	1476.	1518.	1549.	1583.
LARGE MULT-FAM	284.	356.	441.	504.	573.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	612.	469.	469.	469.	478.
DOM NON SEASNL	556.	413.	412.	411.	418.
ADJ SEASNL USE	56.	56.	57.	58.	59.
54-370 WESTWOOD		INCOME CLASS =	3		
TOTAL POPULATION	12750.	13212.	14855.	16689.	18899.
N-INS POP - MDC	12708.	13210.	14853.	16687.	18896.
INSTITU POP	42.	2.	2.	2.	3.
HOUSEHOLD SIZE	3.600	3.170	3.063	3.024	2.974
TOTAL HOUSEHOLDS	3530.	4171.	4850.	5518.	6353.
SINGLE FAMILY	3354.	3795.	4263.	4723.	5298.
SMALL MULT-FAM	156.	156.	156.	156.	156.
LARGE MULT-FAM	20.	220.	431.	639.	899.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	374.	252.	264.	280.	306.
DOM NON SEASNL	322.	200.	211.	225.	249.
ADJ SEASNL USE	52.	52.	53.	55.	57.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
55-401 QUINCY		INCOME CLASS =	1		
TOTAL POPULATION	87966.	84743.	90686.	92926.	97197.
N-INS POP - MDC	86304.	83402.	89243.	91404.	95498.
INSTITU POP	1662.	1341.	1443.	1521.	1699.
HOUSEHOLD SIZE	3.030	2.490	2.406	2.375	2.336
TOTAL HOUSEHOLDS	28488.	33492.	37096.	38478.	40875.
SINGLE FAMILY	13175.	13461.	13667.	13746.	13893.
SMALL MULT-FAM	11529.	11625.	11693.	11720.	11766.
LARGE MULT-FAM	3784.	8407.	11736.	13012.	15227.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1924.	2068.	2081.	2040.	2087.
DOM NON SEASNL	1797.	2020.	2041.	1999.	2044.
ADJ SEASNL USE	127.	42.	40.	41.	42.
56-402 BRAINTREE		INCOME CLASS =	2		
TOTAL POPULATION	35053.	36337.	39441.	44129.	52953.
N-INS POP - MDC	34360.	35257.	38286.	42895.	51597.
INSTITU POP	693.	1080.	1154.	1234.	1356.
HOUSEHOLD SIZE	3.600	3.070	2.966	2.929	2.881
TOTAL HOUSEHOLDS	9548.	11484.	12908.	14546.	17912.
SINGLE FAMILY	7824.	8538.	9062.	9703.	10907.
SMALL MULT-FAM	1358.	1364.	1369.	1374.	1385.
LARGE MULT-FAM	366.	1582.	2477.	3569.	5621.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	858.	943.	967.	1037.	1223.
DOM NON SEASNL	781.	866.	889.	954.	1132.
ADJ SEASNL USE	77.	77.	78.	83.	91.
57-406 MILTON		INCOME CLASS =	3		
TOTAL POPULATION	27190.	25860.	27473.	27998.	29503.
N-INS POP - MDC	26485.	25294.	26864.	27356.	28786.
INSTITU POP	705.	565.	609.	642.	717.
HOUSEHOLD SIZE	3.340	3.020	2.918	2.881	2.834
TOTAL HOUSEHOLDS	7937.	8369.	9207.	9495.	10159.
SINGLE FAMILY	6524.	6745.	7173.	7321.	7660.
SMALL MULT-FAM	1308.	1318.	1337.	1343.	1358.
LARGE MULT-FAM	105.	306.	697.	831.	1140.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	707.	621.	617.	600.	614.
DOM NON SEASNL	612.	552.	565.	548.	561.
ADJ SEASNL USE	95.	51.	52.	52.	53.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
53-413 DANVERS		INCOME CLASS =		2	
TOTAL POPULATION	26151.	24000.	25941.	28008.	30766.
N-INS POP - MDC	23757.	22529.	24353.	26307.	28897.
INSTITU POP	2154.	1243.	1329.	1420.	1561.
HOUSEHOLD SIZE	3.370	2.870	2.773	2.739	2.693
TOTAL HOUSEHOLDS	7762.	7896.	8783.	9608.	10731.
SINGLE FAMILY	5066.	5627.	6222.	6777.	7532.
SMALL MULT-FAM	1102.	1132.	1163.	1192.	1232.
LARGE MULT-FAM	394.	1138.	1397.	1639.	1967.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	552.	544.	555.	574.	617.
DOM NON SEASNL	502.	493.	503.	521.	561.
ADJ SEASNL USE	51.	51.	51.	53.	56.
53-418 MARBLEHEAD		INCOME CLASS =		3	
TOTAL POPULATION	21295.	20126.	21949.	22851.	24335.
N-INS POP - MDC	21144.	19983.	21795.	22688.	24153.
INSTITU POP	151.	143.	154.	162.	181.
HOUSEHOLD SIZE	2.960	2.520	2.435	2.404	2.364
TOTAL HOUSEHOLDS	7156.	7915.	8952.	9437.	10215.
SINGLE FAMILY	5024.	5503.	6156.	6462.	6953.
SMALL MULT-FAM	1504.	1784.	2168.	2347.	2634.
LARGE MULT-FAM	628.	628.	628.	628.	628.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	569.	570.	578.	576.	597.
DOM NON SEASNL	490.	481.	498.	495.	515.
ADJ SEASNL USE	78.	77.	79.	80.	82.
53-419 MIDDLETON		INCOME CLASS =		2	
TOTAL POPULATION	4044.	4135.	5008.	5357.	5728.
N-INS POP - MDC	2273.	2475.	2994.	3202.	3424.
INSTITU POP	256.	10.	11.	11.	13.
HOUSEHOLD SIZE	3.370	2.900	2.802	2.767	2.721
TOTAL HOUSEHOLDS	674.	854.	1069.	1158.	1258.
SINGLE FAMILY	584.	658.	745.	782.	823.
SMALL MULT-FAM	45.	47.	49.	50.	51.
LARGE MULT-FAM	45.	149.	274.	326.	385.
PCT SERVD BY MDC	0.500	0.600	0.600	0.600	0.600
TOTAL DOM. WAT U	51.	60.	68.	70.	73.
DOM NON SEASNL	55.	51.	58.	60.	63.
ADJ SEASNL USE	6.	9.	10.	10.	10.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
61-420 PEABODY		INCOME CLASS =		2	
TOTAL POPULATION	48030.	45976.	47274.	49758.	54217.
N-INS POP - MDC	47758.	45703.	46980.	49448.	53871.
INSTITU POP	322.	273.	294.	310.	346.
HOUSEHOLD SIZE	3.380	2.890	2.792	2.757	2.712
TOTAL HOUSEHOLDS	14142.	15804.	16826.	17935.	19867.
SINGLE FAMILY	9547.	10328.	10747.	11201.	11992.
SMALL MULT-FAM	3016.	3050.	3071.	3094.	3133.
LARGE MULT-FAM	1479.	2426.	3008.	3640.	4741.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1111.	1171.	1139.	1146.	1220.
DOM NON SEASNL	1013.	1073.	1043.	1047.	1117.
ADJ SEASNL USE	98.	98.	96.	99.	103.
62-435 CHICOPEE		INCOME CLASS =		1	
TOTAL POPULATION	66576.	55112.	59599.	63066.	71319.
N-INS POP - MDC	63761.	54344.	58762.	62195.	70346.
INSTITU POP	2915.	768.	827.	871.	973.
HOUSEHOLD SIZE	3.220	2.650	2.560	2.528	2.486
TOTAL HOUSEHOLDS	19824.	20480.	22951.	24601.	28292.
SINGLE FAMILY	9148.	9492.	10787.	11551.	13585.
SMALL MULT-FAM	7305.	7823.	7390.	7935.	8036.
LARGE MULT-FAM	2371.	3165.	4275.	5015.	6671.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1247.	1422.	1418.	1447.	1615.
DOM NON SEASNL	1166.	1143.	1174.	1192.	1334.
ADJ SEASNL USE	82.	243.	244.	255.	281.
63-450 WARE		INCOME CLASS =		1	
TOTAL POPULATION	8137.	8953.	9754.	10379.	11263.
N-INS POP - MDC	8137.	8946.	9746.	10371.	11254.
INSTITU POP	0.	7.	7.	8.	9.
HOUSEHOLD SIZE	3.000	2.640	2.551	2.519	2.477
TOTAL HOUSEHOLDS	2729.	3389.	3821.	4118.	4543.
SINGLE FAMILY	1498.	2057.	2423.	2674.	3035.
SMALL MULT-FAM	1166.	1228.	1268.	1296.	1336.
LARGE MULT-FAM	65.	104.	130.	147.	173.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	206.	136.	142.	145.	155.
DOM NON SEASNL	192.	122.	127.	130.	139.
ADJ SEASNL USE	14.	14.	15.	15.	16.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
64-455 WILBRAHAM		INCOME CLASS =	3		
TOTAL POPULATION	11984.	12053.	14476.	15544.	17202.
N-INS POP - MDC	8146.	8196.	9844.	10570.	11697.
INSTITU POP	5.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.610	3.140	3.034	2.996	2.946
TOTAL HOUSEHOLDS	2258.	2613.	3245.	3528.	3970.
SINGLE FAMILY	2103.	2459.	3090.	3374.	3816.
SMALL MULT-FAM	135.	135.	135.	135.	135.
LARGE MULT-FAM	19.	19.	19.	19.	19.
PCT SERVD BY MDC	0.680	0.680	0.680	0.680	0.680
TOTAL DOM. WAT U	234.	203.	212.	217.	231.
DOM NON SEASNL	201.	128.	144.	147.	159.
ADJ SEASNL USE	33.	65.	68.	70.	72.
65-471 WALTHAM		INCOME CLASS =	2		
TOTAL POPULATION	61582.	56890.	59182.	61711.	65637.
N-INS POP - MDC	55370.	52419.	54369.	56640.	59973.
INSTITU POP	6212.	4471.	4313.	5072.	5664.
HOUSEHOLD SIZE	3.040	2.550	2.464	2.433	2.393
TOTAL HOUSEHOLDS	18210.	20594.	22068.	23282.	25066.
SINGLE FAMILY	7337.	7996.	8404.	8739.	9232.
SMALL MULT-FAM	6835.	6960.	7007.	7045.	7101.
LARGE MULT-FAM	3988.	5638.	6658.	7498.	8732.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	1257.	1431.	1357.	1357.	1408.
DOM NON SEASNL	1157.	1190.	1159.	1154.	1197.
ADJ SEASNL USE	100.	210.	198.	203.	211.
66-472 ACTON		INCOME CLASS =	1		
TOTAL POPULATION	14770.	17544.	22754.	24893.	27020.
N-INS POP - MDC	13538.	16031.	20806.	22765.	24709.
INSTITU POP	55.	119.	127.	136.	149.
HOUSEHOLD SIZE	3.670	2.910	2.811	2.776	2.730
TOTAL HOUSEHOLDS	3676.	5507.	7400.	8200.	9050.
SINGLE FAMILY	2663.	3229.	3813.	4060.	4322.
SMALL MULT-FAM	310.	411.	516.	560.	607.
LARGE MULT-FAM	703.	1867.	3072.	3580.	4121.
PCT SERVD BY MDC	0.920	0.920	0.920	0.920	0.920
TOTAL DOM. WAT U	366.	355.	433.	459.	492.
DOM NON SEASNL	342.	332.	408.	432.	463.
ADJ SEASNL USE	24.	23.	25.	27.	29.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
67-473 BEDFORD		INCOME CLASS =	2		
TOTAL POPULATION	13515.	13062.	14011.	16369.	19875.
N-INS POP - MDC	12431.	11724.	12558.	14770.	18067.
INSTITU POP	1084.	1338.	1453.	1600.	1808.
HOUSEHOLD SIZE	3.790	3.140	3.034	2.996	2.946
TOTAL HOUSEHOLDS	3273.	3741.	4140.	4930.	6132.
SINGLE FAMILY	2712.	3071.	3378.	3985.	4908.
SMALL MULT-FAM	480.	480.	480.	480.	480.
LARGE MULT-FAM	81.	190.	282.	465.	744.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	287.	314.	319.	358.	429.
DOM NON SEASNL	260.	288.	293.	329.	397.
ADJ SEASNL USE	26.	26.	27.	29.	32.
68-476 LEXINGTON		INCOME CLASS =	3		
TOTAL POPULATION	31386.	32929.	32782.	33787.	35339.
N-INS POP - MDC	31274.	31180.	30910.	31823.	33169.
INSTITU POP	296.	1434.	1544.	1627.	1817.
HOUSEHOLD SIZE	3.610	3.000	2.898	2.862	2.815
TOTAL HOUSEHOLDS	8661.	9576.	10664.	11119.	11784.
SINGLE FAMILY	7798.	8428.	9176.	9488.	9945.
SMALL MULT-FAM	668.	814.	987.	1059.	1164.
LARGE MULT-FAM	194.	335.	502.	572.	675.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	870.	902.	832.	824.	835.
DOM NON SEASNL	753.	529.	508.	497.	503.
ADJ SEASNL USE	117.	324.	325.	327.	332.
69-479 WESTON		INCOME CLASS =	3		
TOTAL POPULATION	10370.	11169.	12694.	13520.	15225.
N-INS POP - MDC	8968.	9202.	10407.	11096.	12506.
INSTITU POP	905.	945.	1017.	1072.	1197.
HOUSEHOLD SIZE	3.520	3.130	3.024	2.986	2.937
TOTAL HOUSEHOLDS	2476.	2944.	3441.	3716.	4258.
SINGLE FAMILY	2324.	2505.	2698.	2805.	3015.
SMALL MULT-FAM	118.	118.	118.	118.	118.
LARGE MULT-FAM	34.	321.	625.	793.	1125.
PCT SERVD BY MDC	0.900	0.900	0.900	0.900	0.900
TOTAL DOM. WAT U	258.	353.	354.	360.	389.
DOM NON SEASNL	223.	234.	248.	252.	277.
ADJ SEASNL USE	35.	103.	106.	108.	112.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
70-491 WOBURN		INCOME CLASS =	2		
TOTAL POPULATION	37406.	36626.	38130.	41262.	47066.
N-INS POP - MDC	42777.	41699.	43455.	47037.	53662.
INSTITU POP	209.	366.	394.	415.	464.
HOUSEHOLD SIZE	3.510	2.930	2.831	2.795	2.749
TOTAL HOUSEHOLDS	12188.	14252.	15351.	16827.	19519.
SINGLE FAMILY	7496.	8351.	8807.	9419.	10535.
SMALL MULT-FAM	3049.	3176.	3243.	3334.	3499.
LARGE MULT-FAM	1643.	2725.	3301.	4075.	5485.
PCT SERVD BY MDC	1.150	1.150	1.150	1.150	1.150
TOTAL DOM. WAT U	1004.	1068.	1037.	1074.	1202.
DOM NON SEASNL	920.	971.	955.	988.	1109.
ADJ SEASNL USE	85.	84.	82.	86.	93.
71-493 NORTH READING		INCOME CLASS =	3		
TOTAL POPULATION	11254.	11455.	13894.	15171.	16583.
N-INS POP - MDC	11009.	11195.	13598.	14851.	16233.
INSTITU POP	144.	147.	157.	163.	185.
HOUSEHOLD SIZE	3.770	3.140	3.034	2.996	2.946
TOTAL HOUSEHOLDS	2916.	3568.	4482.	4958.	5510.
SINGLE FAMILY	2688.	2970.	3365.	3571.	3810.
SMALL MULT-FAM	149.	149.	149.	149.	149.
LARGE MULT-FAM	78.	448.	967.	1237.	1550.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	312.	216.	242.	252.	268.
DOM NON SEASNL	270.	190.	215.	224.	240.
ADJ SEASNL USE	42.	26.	27.	28.	29.
72-495 STONEHAM		INCOME CLASS =	2		
TOTAL POPULATION	20725.	21424.	23102.	23671.	24759.
N-INS POP - MDC	21251.	21910.	23632.	24209.	25309.
INSTITU POP	93.	152.	164.	172.	193.
HOUSEHOLD SIZE	3.230	2.830	2.734	2.700	2.655
TOTAL HOUSEHOLDS	6537.	7731.	8643.	8967.	9531.
SINGLE FAMILY	4028.	4334.	4578.	4665.	4816.
SMALL MULT-FAM	1302.	1311.	1318.	1321.	1326.
LARGE MULT-FAM	1257.	2086.	2746.	2981.	3390.
PCT SERVD BY MDC	1.030	1.030	1.030	1.030	1.030
TOTAL DOM. WAT U	529.	425.	430.	422.	431.
DOM NON SEASNL	434.	382.	388.	379.	387.
ADJ SEASNL USE	45.	43.	42.	43.	44.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
73-496 WILMINGTON		INCOME CLASS =		2	
TOTAL POPULATION	17103.	17471.	19454.	20579.	21398.
N-INS POP - MDC	16932.	17296.	19259.	20374.	21184.
INSTITU POP	0.	0.	0.	0.	0.
HOUSEHOLD SIZE	3.940	3.490	3.372	3.330	3.275
TOTAL HOUSEHOLDS	4294.	4954.	5712.	6119.	6469.
SINGLE FAMILY	4088.	4748.	5506.	5913.	6263.
SMALL MULT-FAM	191.	191.	191.	191.	191.
LARGE MULT-FAM	15.	15.	15.	15.	15.
PCT SERVD BY MDC	0.990	0.990	0.990	0.990	0.990
TOTAL DOM. WAT U	422.	321.	339.	343.	348.
DOM NON SEASNL	333.	282.	298.	301.	305.
ADJ SEASNL USE	39.	39.	41.	42.	43.
74-497 WINCHESTER		INCOME CLASS =		3	
TOTAL POPULATION	22269.	20701.	22705.	23469.	24932.
N-INS POP - MDC	22108.	20465.	22451.	23201.	24683.
INSTITU POP	161.	236.	254.	268.	299.
HOUSEHOLD SIZE	3.440	3.010	2.908	2.872	2.824
TOTAL HOUSEHOLDS	6436.	6800.	7720.	8080.	8740.
SINGLE FAMILY	4315.	5129.	5924.	6235.	6805.
SMALL MULT-FAM	1099.	1109.	1133.	1142.	1159.
LARGE MULT-FAM	522.	562.	663.	703.	775.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	565.	620.	592.	591.	608.
DOM NON SEASNL	492.	294.	304.	300.	311.
ADJ SEASNL USE	74.	283.	288.	292.	298.
75-501 WORCESTER		INCOME CLASS =		1	
TOTAL POPULATION	176572.	151799.	155550.	168079.	175633.
N-INS POP - MDC	166334.	150313.	153187.	155050.	161083.
INSTITU POP	10238.	11486.	12363.	13029.	14550.
HOUSEHOLD SIZE	2.940	2.560	2.473	2.442	2.402
TOTAL HOUSEHOLDS	55506.	53720.	61936.	63486.	67061.
SINGLE FAMILY	18057.	18259.	18565.	18713.	19054.
SMALL MULT-FAM	28302.	28599.	29747.	28918.	28983.
LARGE MULT-FAM	10047.	11862.	14623.	15954.	19024.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	3451.	2710.	2502.	2516.	2554.
DOM NON SEASNL	3232.	2491.	2296.	2307.	2339.
ADJ SEASNL USE	219.	219.	206.	209.	216.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
76-507 HOLDEN		INCOME CLASS =	2		
TOTAL POPULATION	12564.	13336.	15418.	17239.	20526.
N-INS POP - MDC	10344.	10958.	12655.	14157.	16870.
INSTITU POP	101.	133.	142.	152.	167.
HOUSEHOLD SIZE	3.290	2.910	2.811	2.776	2.730
TOTAL HOUSEHOLDS	3152.	3765.	4501.	5099.	6178.
SINGLE FAMILY	2832.	3316.	3897.	4369.	5221.
SMALL MULT-FAM	273.	282.	292.	300.	315.
LARGE MULT-FAM	47.	168.	312.	430.	642.
PCT SERVD BY MDC	0.830	0.830	0.830	0.830	0.830
TOTAL DOM. WAT U	273.	300.	328.	351.	410.
DOM NON SEASNL	246.	264.	289.	311.	366.
ADJ SEASNL USE	27.	36.	38.	40.	44.
77-514 PAXTON		INCOME CLASS =	2		
TOTAL POPULATION	3731.	3762.	4394.	4918.	5811.
N-INS POP - MDC	3131.	3283.	3839.	4309.	5113.
INSTITU POP	364.	232.	248.	265.	291.
HOUSEHOLD SIZE	3.540	3.120	3.014	2.977	2.927
TOTAL HOUSEHOLDS	884.	1054.	1273.	1448.	1746.
SINGLE FAMILY	851.	1020.	1240.	1414.	1713.
SMALL MULT-FAM	33.	33.	33.	33.	33.
LARGE MULT-FAM	0.	0.	0.	0.	0.
PCT SERVD BY MDC	0.930	0.930	0.930	0.930	0.930
TOTAL DOM. WAT U	82.	69.	76.	82.	95.
DOM NON SEASNL	73.	59.	65.	70.	82.
ADJ SEASNL USE	8.	10.	11.	11.	12.
78-515 RUTLAND		INCOME CLASS =	2		
TOTAL POPULATION	3198.	4334.	5055.	5860.	7425.
N-INS POP - MDC	2058.	2888.	3304.	3857.	4938.
INSTITU POP	300.	266.	284.	304.	334.
HOUSEHOLD SIZE	3.290	2.880	2.782	2.748	2.702
TOTAL HOUSEHOLDS	626.	1002.	1188.	1404.	1827.
SINGLE FAMILY	512.	749.	866.	1003.	1270.
SMALL MULT-FAM	94.	99.	101.	104.	109.
LARGE MULT-FAM	20.	154.	220.	297.	449.
PCT SERVD BY MDC	0.710	0.710	0.710	0.710	0.710
TOTAL DOM. WAT U	71.	58.	62.	69.	87.
DOM NON SEASNL	64.	47.	51.	57.	73.
ADJ SEASNL USE	7.	11.	11.	12.	14.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
79-518 WESTBOROUGH		INCOME CLASS =		2	
TOTAL POPULATION	12394.	13404.	15062.	16795.	19100.
N-INS POP - MDC	10635.	12774.	14367.	16037.	18255.
INSTITU POP	1742.	369.	394.	422.	463.
HOUSEHOLD SIZE	3.390	2.700	2.609	2.576	2.533
TOTAL HOUSEHOLDS	3144.	4729.	5507.	6226.	7206.
SINGLE FAMILY	2111.	2931.	3334.	3706.	4213.
SMALL MULT-FAM	516.	627.	632.	636.	642.
LARGE MULT-FAM	417.	1171.	1542.	1884.	2350.
PCT SERVD BY MDC	0.980	0.980	0.980	0.980	0.980
TOTAL DOM. WAT U	312.	374.	395.	424.	475.
DOM NON SEASNL	284.	345.	366.	393.	442.
ADJ SEASNL USE	28.	29.	29.	31.	33.
80-521 SPECIAL USERS		INCOME CLASS =		0	
TOTAL POPULATION	0.	0.	0.	0.	0.
N-INS POP - MDC	0.	0.	0.	0.	0.
INSTITU POP	0.	0.	0.	0.	0.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	0.	0.	0.	0.	0.
SINGLE FAMILY	0.	0.	0.	0.	0.
SMALL MULT-FAM	0.	0.	0.	0.	0.
LARGE MULT-FAM	0.	0.	0.	0.	0.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	0.	0.	0.	0.	0.
DOM NON SEASNL	0.	0.	0.	0.	0.
ADJ SEASNL USE	0.	0.	0.	0.	0.
81-522 LYNNFIELD CWD		INCOME CLASS =		3	
TOTAL POPULATION	7578.	7887.	9000.	9606.	10339.
N-INS POP - MDC	7568.	7886.	8999.	9605.	10338.
INSTITU POP	10.	1.	1.	1.	1.
HOUSEHOLD SIZE	3.640	3.200	3.092	3.053	3.003
TOTAL HOUSEHOLDS	2080.	2468.	2911.	3146.	3443.
SINGLE FAMILY	2034.	2422.	2865.	3100.	3397.
SMALL MULT-FAM	46.	46.	46.	46.	46.
LARGE MULT-FAM	0.	0.	0.	0.	0.
PCT SERVD BY MDC	1.000	1.000	1.000	1.000	1.000
TOTAL DOM. WAT U	226.	181.	193.	196.	205.
DOM NON SEASNL	194.	163.	174.	177.	186.
ADJ SEASNL USE	32.	18.	19.	19.	19.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
82-700 FULL SUP MDC MEMB		INCOME CLASS =	0		
TOTAL POPULATION	1618937.	1471220.	1511592.	1551564.	1633350.
N-INS POP - MDC	1556983.	1411842.	1447542.	1484038.	1558405.
INSTITU POP	65995.	63099.	67918.	71578.	79932.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	529453.	556000.	590563.	612648.	652761.
SINGLE FAMILY	148353.	153278.	158525.	161752.	168215.
SMALL MULT-FAM	239235.	240994.	243055.	244604.	247374.
LARGE MULT-FAM	141815.	161727.	188981.	206290.	237170.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	33712.	35918.	34008.	33308.	34125.
DOM NON SEASNL	31116.	32333.	31080.	30339.	31074.
ADJ SEASNL USE	2596.	3142.	2928.	2968.	3051.
83-710 FULL SUP NON-MEMB		INCOME CLASS =	0		
TOTAL POPULATION	103613.	96256.	106816.	113176.	126301.
N-INS POP - MDC	101212.	91024.	100706.	106686.	119176.
INSTITU POP	3183.	982.	1057.	1114.	1244.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	31073.	33293.	38045.	40794.	46352.
SINGLE FAMILY	16145.	17470.	20303.	21926.	25053.
SMALL MULT-FAM	10902.	10937.	11024.	11074.	11188.
LARGE MULT-FAM	4026.	4886.	6718.	7794.	10111.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	2179.	2494.	2516.	2560.	2805.
DOM NON SEASNL	2002.	1978.	2062.	2090.	2299.
ADJ SEASNL USE	177.	449.	454.	470.	506.
84-720 TOT FULL SUP BY MDC		INCOME CLASS =	0		
TOTAL POPULATION	1727550.	1567476.	1618408.	1664739.	1760151.
N-INS POP - MDC	1658194.	1502866.	1548247.	1590723.	1677580.
INSTITU POP	69178.	64081.	68975.	72592.	81176.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	560526.	589293.	628608.	653441.	699113.
SINGLE FAMILY	164498.	170748.	178828.	183678.	193268.
SMALL MULT-FAM	250137.	251931.	254079.	255679.	253562.
LARGE MULT-FAM	145341.	166612.	195699.	214084.	247281.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	35890.	38412.	36524.	35868.	36930.
DOM NON SEASNL	33117.	34311.	33142.	32429.	33373.
ADJ SEASNL USE	2773.	3590.	3382.	3439.	3557.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
35-730 PART SUP MDC MEMB		INCOME CLASS =	0		
TOTAL POPULATION	319287.	307991.	325681.	339743.	365558.
N-INS POP - MDC	306773.	293574.	309927.	323197.	347256.
INSTITU POP	16585.	18353.	19755.	20819.	23249.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	99936.	110545.	120427.	126859.	133033.
SINGLE FAMILY	49801.	53846.	57785.	60439.	64952.
SMALL MULT-FAM	27034.	27383.	27674.	27892.	28274.
LARGE MULT-FAM	23152.	29315.	34967.	38527.	44807.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	7430.	7797.	7463.	7484.	7870.
DOM NON SEASNL	6690.	6039.	5999.	5995.	6334.
ADJ SEASNL USE	740.	1554.	1463.	1489.	1537.
36-740 PART SUP NON-MEMB		INCOME CLASS =	0		
TOTAL POPULATION	310713.	302605.	334302.	348910.	380882.
N-INS POP - MDC	291934.	281519.	310499.	323407.	351516.
INSTITU POP	14019.	15971.	17191.	18117.	20232.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	95053.	107626.	122598.	129143.	142392.
SINGLE FAMILY	39571.	43067.	46890.	48634.	51996.
SMALL MULT-FAM	37317.	38228.	33671.	38839.	39160.
LARGE MULT-FAM	17554.	26332.	37037.	41670.	51236.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	6555.	6139.	6301.	6346.	6816.
DOM NON SEASNL	5997.	5104.	5370.	5394.	5823.
ADJ SEASNL USE	457.	944.	930.	952.	993.
37-750 TOT PART SUP BY MDC		INCOME CLASS =	0		
TOTAL POPULATION	630000.	610596.	659983.	688653.	746440.
N-INS POP - MDC	598757.	575093.	620325.	646604.	693773.
INSTITU POP	30604.	34324.	36946.	38936.	43481.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	195039.	218171.	243025.	256001.	280425.
SINGLE FAMILY	89472.	96913.	104675.	109073.	116949.
SMALL MULT-FAM	54351.	65611.	66345.	66732.	67433.
LARGE MULT-FAM	40716.	55647.	72005.	80197.	96043.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	13934.	13936.	13763.	13830.	14686.
DOM NON SEASNL	12789.	11143.	11370.	11389.	12157.
ADJ SEASNL USE	1197.	2498.	2394.	2442.	2529.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
88-760 TOT ALL 44 COMMUN		INCOME CLASS =	0		
TOTAL POPULATION	2357350.	2178072.	2278390.	2353392.	2506591.
N-INS POP - MDC	2256950.	2077958.	2168572.	2237326.	2376352.
INSTITU POP	99782.	98405.	105921.	111628.	124656.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	755555.	807464.	871632.	909443.	979538.
SINGLE FAMILY	253970.	267661.	283503.	292751.	310217.
SMALL MULT-FAM	315039.	317542.	320424.	322409.	325995.
LARGE MULT-FAM	186557.	222259.	267704.	294281.	343324.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	49375.	52348.	50287.	49698.	51616.
DOM NON SEASNL	45905.	45454.	44512.	43818.	45529.
ADJ SEASNL USE	3970.	6089.	5776.	5880.	6087.
89-800 PLN AREA NON-MDC		INCOME CLASS =	0		
TOTAL POPULATION	611799.	624775.	684685.	743363.	827265.
N-INS POP - MDC	575455.	587743.	642415.	696734.	773572.
INSTITU POP	25541.	25708.	27501.	29447.	32411.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	174335.	204054.	230836.	253200.	285467.
SINGLE FAMILY	105776.	120201.	134644.	145951.	162335.
SMALL MULT-FAM	46373.	47440.	48299.	48957.	49909.
LARGE MULT-FAM	22186.	36413.	47892.	58291.	73222.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	14083.	15613.	15918.	16545.	18046.
DOM NON SEASNL	12920.	14371.	14668.	15233.	16643.
ADJ SEASNL USE	1163.	1242.	1250.	1312.	1403.
90-810 PLN AREA COMP USE		INCOME CLASS =	0		
TOTAL POPULATION	108268.	117418.	122855.	139687.	172344.
N-INS POP - MDC	104399.	113170.	118299.	134794.	166867.
INSTITU POP	3018.	3416.	3674.	3974.	4418.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	29035.	36167.	39285.	45010.	56330.
SINGLE FAMILY	22500.	28026.	30457.	35067.	44133.
SMALL MULT-FAM	4208.	4402.	4389.	4553.	4399.
LARGE MULT-FAM	2377.	3739.	4140.	5390.	7798.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	2788.	2732.	2682.	2938.	3599.
DOM NON SEASNL	2525.	2445.	2397.	2633.	3259.
ADJ SEASNL USE	262.	287.	285.	305.	340.

POPULATION, HOUSING UNITS AND
DOMESTIC WATER USE (SEASONAL AND NON SEASONAL)
(MILLIONS OF GALLONS PER YEAR)

	1970	1980	1990	2000	2020
01-820 TOTAL NON-MDC		INCOME CLASS =	0		
TOTAL POPULATION	720067.	742193.	807540.	883050.	999608.
N-INS POP - MDC	679344.	700913.	760714.	831528.	940439.
INSTITU POP	29559.	29124.	31175.	33421.	36829.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	203419.	240221.	269821.	298209.	342297.
SINGLE FAMILY	128275.	148227.	165101.	181018.	206468.
SMALL MULT-FAM	50581.	51842.	52688.	53510.	54808.
LARGE MULT-FAM	24564.	40153.	52032.	63681.	81020.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	16370.	18345.	18600.	19483.	21645.
DOM NON SEASNL	15445.	16816.	17065.	17866.	19901.
ADJ SEASNL USE	1425.	1529.	1535.	1617.	1743.
02-000 TOTAL PLAN AREA		INCOME CLASS =	0		
TOTAL POPULATION	3077517.	2920265.	3035929.	3236442.	3505199.
N-INS POP - MDC	2936793.	2778870.	2929286.	3068853.	3315791.
INSTITU POP	129441.	127529.	137096.	145049.	161485.
HOUSEHOLD SIZE	0.0	0.0	0.0	0.0	0.0
TOTAL HOUSEHOLDS	958934.	1047686.	1141452.	1207652.	1321834.
SINGLE FAMILY	382245.	415888.	443604.	473769.	516685.
SMALL MULT-FAM	365518.	359383.	373111.	375920.	380803.
LARGE MULT-FAM	211121.	252412.	319736.	357962.	424344.
PCT SERVD BY MDC	0.0	0.0	0.0	0.0	0.0
TOTAL DOM. WAT U	66745.	70693.	68887.	69181.	73261.
DOM NON SEASNL	61350.	62270.	61577.	61685.	65431.
ADJ SEASNL USE	5395.	7618.	7311.	7497.	7830.

ESTIMATED CHARGE FOR PRINTING 3,749 LINES IS $6.37

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
51 BOSTON									
TOTAL ALL	1980	53600.0	5545.0	375.0	0.0	0.0	3069.2	2025.4	175.0
TOTAL ALL	1990	43729.9	5243.1	290.4	0.0	0.0	2910.6	2569.6	172.5
TOTAL ALL	2000	40885.3	6590.5	260.0	0.0	0.0	2912.3	3242.4	175.8
TOTAL ALL	2020	37205.6	7889.9	221.0	0.0	0.0	3033.2	4446.6	189.2
52 BROOKLINE									
TOTAL ALL	1980	394.0	21.0	2.8	0.0	0.0	14.6	3.2	0.2
TOTAL ALL	1990	381.5	21.5	2.5	0.0	0.0	15.5	3.3	0.2
TOTAL ALL	2000	374.0	22.9	2.6	0.0	0.0	16.6	3.6	0.2
TOTAL ALL	2020	348.3	23.8	2.1	0.0	0.0	17.1	4.5	0.1
53 CAMBRIDGE									
TOTAL ALL	1980	16758.0	1266.9	117.2	0.0	0.0	475.9	641.7	31.4
TOTAL ALL	1990	15183.9	1392.6	100.7	0.0	0.0	502.8	751.7	30.4
TOTAL ALL	2000	14665.8	1546.0	93.2	0.0	0.0	533.6	883.2	31.0
TOTAL ALL	2020	14122.1	1791.3	83.8	0.0	0.0	637.1	1235.9	34.5
54 ARLINGTON									
TOTAL ALL	1980	351.0	24.4	2.3	0.0	0.0	13.5	7.5	0.8
TOTAL ALL	1990	352.1	27.0	2.2	0.0	0.0	15.0	9.0	0.9
TOTAL ALL	2000	353.6	28.9	2.1	0.0	0.0	16.0	9.9	0.9
TOTAL ALL	2020	280.5	27.7	1.5	0.0	0.0	15.7	9.7	0.8
63 BELMONT									
TOTAL ALL	1980	376.0	93.3	2.5	0.0	0.0	69.2	19.7	0.6
TOTAL ALL	1990	459.3	97.5	3.0	0.0	0.0	78.3	15.5	0.7
TOTAL ALL	2000	493.9	107.4	3.2	0.0	0.0	83.2	20.3	0.8
TOTAL ALL	2020	449.0	109.4	2.6	0.0	0.0	79.9	25.9	1.0
71 MALDEN									
TOTAL ALL	1980	2394.0	245.3	16.7	0.0	0.0	113.6	106.9	8.2
TOTAL ALL	1990	1983.5	253.6	13.2	0.0	0.0	111.9	121.0	7.7
TOTAL ALL	2000	1914.7	279.1	12.2	0.0	0.0	113.8	145.5	7.7
TOTAL ALL	2020	1904.3	347.9	11.4	0.0	0.0	122.9	205.1	8.5
72 EVERETT									
TOTAL ALL	1980	4370.0	813.7	30.7	0.0	0.0	176.0	583.7	23.5
TOTAL ALL	1990	4174.9	921.2	27.9	0.0	0.0	182.9	685.0	25.6
TOTAL ALL	2000	4138.0	1059.5	26.4	0.0	0.0	198.7	816.3	29.1
TOTAL ALL	2020	4191.0	1447.5	24.8	0.0	0.0	254.3	1133.1	35.3
73 MELROSE									
TOTAL ALL	1980	994.0	24.9	7.0	0.0	0.0	10.1	6.3	0.7
TOTAL ALL	1990	902.5	26.3	6.1	0.0	0.0	11.0	8.5	0.9
TOTAL ALL	2000	862.1	28.8	5.6	0.0	0.0	11.9	10.5	0.8
TOTAL ALL	2020	925.7	37.9	5.5	0.0	0.0	15.1	16.2	1.1

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	SANITARY USES INPOP RL	OTHER	COOLING	PROCESS	MISC
76 WAKEFIELD									
TOTAL ALL	1980	3009.0	48.9	21.0	0.0	0.0	12.6	14.1	0.9
TOTAL ALL	1990	3807.5	60.3	25.3	0.0	0.0	14.6	19.4	1.1
TOTAL ALL	2000	4701.2	73.9	29.9	0.0	0.0	17.0	25.8	1.3
TOTAL ALL	2020	6003.0	103.0	35.7	0.0	0.0	24.0	41.3	1.9
91 MEDFORD									
TOTAL ALL	1980	1207.0	56.4	8.5	0.0	0.0	26.0	19.7	2.0
TOTAL ALL	1990	1074.9	58.2	7.2	0.0	0.0	26.4	22.8	1.9
TOTAL ALL	2000	1029.3	62.0	6.5	0.0	0.0	27.3	26.3	1.9
TOTAL ALL	2020	904.1	67.7	5.4	0.0	0.0	28.5	31.9	1.9
92 NEWTON									
TOTAL ALL	1980	5187.0	297.2	36.3	0.0	0.0	73.0	182.4	5.4
TOTAL ALL	1990	6525.7	376.2	43.4	0.0	0.0	88.0	233.3	6.5
TOTAL ALL	2000	7476.5	442.2	47.6	0.0	0.0	102.4	291.4	7.7
TOTAL ALL	2020	8525.9	568.5	50.7	0.0	0.0	130.2	377.5	10.1
93 NEEDHAM									
TOTAL ALL	1980	3576.0	260.4	25.0	0.0	0.0	86.3	67.0	81.9
TOTAL ALL	1990	4384.1	315.4	29.1	0.0	0.0	102.2	93.5	90.3
TOTAL ALL	2000	4914.7	363.1	31.2	0.0	0.0	115.5	122.5	94.0
TOTAL ALL	2020	4937.7	416.9	29.7	0.0	0.0	131.9	167.9	97.9
94 WATERTOWN									
TOTAL ALL	1980	6103.0	147.6	29.6	0.0	0.0	51.8	64.5	1.4
TOTAL ALL	1990	7727.7	201.6	32.8	0.0	0.0	70.0	95.7	2.1
TOTAL ALL	2000	9755.4	256.4	34.7	0.0	0.0	89.5	129.9	2.7
TOTAL ALL	2020	9890.9	375.0	36.0	0.0	0.0	137.9	197.0	4.2
95 WELLESLEY									
TOTAL ALL	1980	1185.0	51.6	8.3	0.0	0.0	18.0	24.1	1.2
TOTAL ALL	1990	1221.9	60.1	8.1	0.0	0.0	19.9	31.0	1.4
TOTAL ALL	2000	1362.9	72.0	8.7	0.0	0.0	22.5	40.1	1.7
TOTAL ALL	2020	1730.2	107.6	10.3	0.0	0.0	30.2	64.5	2.6
1 ATHOL									
TOTAL ALL	1980	2763.0	166.7	19.2	0.0	0.0	41.9	100.0	5.3
TOTAL ALL	1990	2747.8	191.1	18.2	0.0	0.0	46.1	121.1	5.7
TOTAL ALL	2000	3651.0	234.2	19.3	0.0	0.0	54.0	154.2	6.7
TOTAL ALL	2020	4113.5	378.1	24.4	0.0	0.0	83.3	260.0	10.5
101 SOMERVILLE									
TOTAL ALL	1980	3227.0	293.0	22.4	0.0	0.0	124.8	120.2	15.3
TOTAL ALL	1990	2883.9	276.1	18.9	0.0	0.0	124.4	138.5	14.4
TOTAL ALL	2000	2672.3	311.3	16.7	0.0	0.0	124.4	155.2	14.1
TOTAL ALL	2020	2163.1	325.4	12.6	0.0	0.0	123.5	175.2	14.1

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
111 BRIDGEWATER									
TOTAL ALL	1990	6808.0	205.1	45.1	0.0	0.0	94.3	57.0	8.6
TOTAL ALL	1990	5517.1	191.4	34.7	0.0	0.0	91.2	57.0	7.6
TOTAL ALL	2000	4863.5	188.2	29.3	0.0	0.0	90.0	61.0	7.1
TOTAL ALL	2020	3614.0	141.2	19.8	0.0	0.0	84.2	70.5	6.7
112 AVON									
TOTAL ALL	1980	1045.0	20.4	7.4	0.0	0.0	7.2	5.3	0.5
TOTAL ALL	1990	1215.8	23.0	8.1	0.0	0.0	8.2	7.0	0.6
TOTAL ALL	2000	1327.0	27.5	8.4	0.0	0.0	9.3	9.0	0.8
TOTAL ALL	2020	1413.0	34.4	8.3	0.0	0.0	11.7	13.3	1.1
119 EASTON									
TOTAL ALL	1980	474.0	38.1	2.9	0.0	0.0	10.9	22.9	1.2
TOTAL ALL	1990	454.3	42.7	2.7	0.0	0.0	11.5	27.3	1.2
TOTAL ALL	2000	457.5	47.5	2.7	0.0	0.0	12.1	31.5	1.3
TOTAL ALL	2020	457.5	56.3	2.6	0.0	0.0	13.5	39.0	1.4
123 HOLBROOK									
TOTAL ALL	1980	637.0	43.0	4.3	0.0	0.0	14.2	23.6	1.7
TOTAL ALL	1990	634.7	50.4	4.0	0.0	0.0	15.4	29.1	1.9
TOTAL ALL	2000	655.8	57.3	4.0	0.0	0.0	16.5	34.8	2.1
TOTAL ALL	2020	665.3	70.5	3.9	0.0	0.0	18.7	45.9	2.3
130 RANDOLPH									
TOTAL ALL	1980	2359.0	126.0	16.5	0.0	0.0	45.3	61.0	3.1
TOTAL ALL	1990	3064.6	167.5	20.3	0.0	0.0	58.5	84.5	4.2
TOTAL ALL	2000	3535.2	208.3	22.5	0.0	0.0	70.7	110.1	5.0
TOTAL ALL	2020	3933.7	285.0	23.3	0.0	0.0	92.4	163.3	6.9
133 STOUGHTON									
TOTAL ALL	1980	1224.0	39.8	20.2	0.0	0.0	7.6	11.4	0.6
TOTAL ALL	1990	1779.4	37.2	17.7	0.0	0.0	7.9	11.2	0.5
TOTAL ALL	2000	1773.2	39.3	17.0	0.0	0.0	8.2	12.7	0.4
TOTAL ALL	2020	1703.5	40.6	15.2	0.0	0.0	9.1	15.9	0.4
135 WHITMAN									
TOTAL ALL	1980	996.0	56.5	6.9	0.0	0.0	14.6	33.2	1.6
TOTAL ALL	1990	927.3	61.0	6.1	0.0	0.0	15.5	39.5	1.7
TOTAL ALL	2000	905.0	72.3	5.7	0.0	0.0	17.7	47.5	1.9
TOTAL ALL	2020	799.7	111.0	4.8	0.0	0.0	25.9	77.4	3.0
141 CHELSEA									
TOTAL ALL	1980	2901.0	324.1	20.3	0.0	0.0	109.7	182.9	11.3
TOTAL ALL	1990	3121.1	399.7	20.8	0.0	0.0	125.3	240.9	12.8
TOTAL ALL	2000	3170.4	454.5	20.2	0.0	0.0	135.3	295.2	13.8
TOTAL ALL	2020	2936.5	559.0	17.5	0.0	0.0	148.1	378.2	15.2

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
140 REVERE									
TOTAL ALL	1980	473.0	32.0	3.2	0.0	0.0	13.4	14.4	1.3
TOTAL ALL	1990	505.6	38.1	3.3	0.0	0.0	15.2	18.2	1.4
TOTAL ALL	2000	499.8	41.9	3.1	0.0	0.0	16.1	21.1	1.4
TOTAL ALL	2020	442.9	45.6	2.6	0.0	0.0	16.9	24.5	1.5
143 WINTHROP									
TOTAL ALL	1980	190.0	32.0	1.4	0.0	0.0	9.5	19.2	1.9
TOTAL ALL	1990	189.2	42.3	1.3	0.0	0.0	10.6	28.3	2.1
TOTAL ALL	2000	173.2	50.1	1.2	0.0	0.0	11.3	35.4	2.2
TOTAL ALL	2020	148.8	58.9	0.9	0.0	0.0	12.5	42.3	2.5
161 FITCHBURG									
TOTAL ALL	1980	6180.0	728.5	43.2	0.0	0.0	318.4	341.4	25.4
TOTAL ALL	1990	6493.1	851.9	43.1	0.0	0.0	350.5	430.7	27.4
TOTAL ALL	2000	6785.0	980.4	43.2	0.0	0.0	375.1	532.5	29.6
TOTAL ALL	2020	7343.4	1291.8	43.7	0.0	0.0	429.5	781.4	37.2
165 CLINTON									
TOTAL ALL	1980	3197.0	160.4	22.3	0.0	0.0	41.5	91.9	4.7
TOTAL ALL	1990	3670.5	209.9	24.4	0.0	0.0	48.0	132.2	5.3
TOTAL ALL	2000	3703.3	254.7	23.6	0.0	0.0	54.1	171.2	5.9
TOTAL ALL	2020	3221.8	313.5	19.1	0.0	0.0	65.4	222.0	5.9
170 LANCASTER									
TOTAL ALL	1980	127.0	4.0	0.8	0.0	0.0	1.1	2.0	0.0
TOTAL ALL	1990	135.2	4.6	0.8	0.0	0.0	1.3	2.5	0.0
TOTAL ALL	2000	146.0	5.4	0.8	0.0	0.0	1.5	3.1	0.0
TOTAL ALL	2020	151.0	6.6	0.9	0.0	0.0	1.7	4.1	0.0
172 LEOMINSTER									
TOTAL ALL	1980	7352.0	1156.9	51.4	0.0	0.0	388.4	706.6	10.1
TOTAL ALL	1990	7581.7	1507.9	50.3	0.0	0.0	472.9	973.3	11.4
TOTAL ALL	2000	7451.2	1815.5	47.3	0.0	0.0	526.7	1239.2	12.3
TOTAL ALL	2020	6802.0	2314.1	40.4	0.0	0.0	602.1	1657.4	14.3
177 STERLING									
TOTAL ALL	1980	167.0	9.2	1.2	0.0	0.0	2.3	5.6	0.2
TOTAL ALL	1990	187.5	13.1	1.3	0.0	0.0	2.8	8.9	0.2
TOTAL ALL	2000	186.4	16.0	1.2	0.0	0.0	3.2	11.4	0.3
TOTAL ALL	2020	152.7	18.2	0.9	0.0	0.0	3.5	13.5	0.3
223 SOUTH HADLEY FD1									
TOTAL ALL	1980	1906.0	368.2	13.3	0.0	0.0	180.7	170.5	3.3
TOTAL ALL	1990	2208.1	440.6	14.7	0.0	0.0	205.6	216.3	4.0
TOTAL ALL	2000	2303.6	492.4	14.7	0.0	0.0	212.3	269.9	4.5
TOTAL ALL	2020	2265.8	577.5	13.5	0.0	0.0	224.0	334.4	5.5

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
234 NORTH ANDOVER									
TOTAL ALL	1980	8455.0	160.9	55.0	0.0	0.0	46.9	54.4	4.5
TOTAL ALL	1990	7659.0	184.7	46.9	0.0	0.0	54.3	78.2	5.3
TOTAL ALL	2000	7399.6	209.4	43.0	0.0	0.0	60.9	99.5	6.0
TOTAL ALL	2020	8459.3	272.7	49.8	0.0	0.0	84.1	134.6	8.2
242 BILLERICA									
TOTAL ALL	1980	4623.0	218.8	26.7	0.0	0.0	62.5	121.9	7.9
TOTAL ALL	1990	6536.5	319.1	35.9	0.0	0.0	84.6	188.4	10.3
TOTAL ALL	2000	8412.7	448.3	44.3	0.0	0.0	110.9	279.8	13.4
TOTAL ALL	2020	11029.5	733.3	54.2	0.0	0.0	170.9	487.5	20.7
243 CHELMSFORD									
TOTAL ALL	1980	1584.0	121.2	11.2	0.0	0.0	44.0	61.9	3.8
TOTAL ALL	1990	2097.1	166.9	13.5	0.0	0.0	57.7	99.5	5.2
TOTAL ALL	2000	2300.4	213.2	14.8	0.0	0.0	71.1	120.8	6.5
TOTAL ALL	2020	2582.4	301.4	15.5	0.0	0.0	97.0	179.5	9.3
245 TYNGSBOROUGH									
TOTAL ALL	1980	224.0	13.9	1.6	0.0	0.0	2.5	9.5	0.4
TOTAL ALL	1990	249.5	18.8	1.7	0.0	0.0	3.3	13.3	0.5
TOTAL ALL	2000	245.2	22.1	1.6	0.0	0.0	3.8	14.0	0.6
TOTAL ALL	2020	224.9	26.0	1.4	0.0	0.0	4.7	19.1	0.8
251 LYNN									
TOTAL ALL	1980	16727.0	1154.7	116.9	0.0	0.0	416.1	517.9	103.7
TOTAL ALL	1990	13615.8	1202.2	90.4	0.0	0.0	415.1	597.5	99.1
TOTAL ALL	2000	12928.7	1314.6	82.3	0.0	0.0	431.6	701.9	98.9
TOTAL ALL	2020	14030.6	1646.9	83.5	0.0	0.0	515.3	973.5	114.2
252 LYNNFIELD PD									
TOTAL ALL	1980	22.0	1.1	0.1	0.0	0.0	0.5	0.2	0.0
TOTAL ALL	1990	25.5	1.0	0.1	0.0	0.0	0.5	0.3	0.0
TOTAL ALL	2000	28.7	1.1	0.1	0.0	0.0	0.6	0.3	0.0
TOTAL ALL	2020	28.5	1.3	0.1	0.0	0.0	0.7	0.5	0.0
253 NAHANT									
TOTAL ALL	1980	6.0	1.1	0.0	0.0	0.0	0.4	0.5	0.1
TOTAL ALL	1990	4.1	1.0	0.0	0.0	0.0	0.4	0.5	0.1
TOTAL ALL	2000	3.3	1.0	0.0	0.0	0.0	0.4	0.5	0.1
TOTAL ALL	2020	2.3	1.0	0.0	0.0	0.0	0.4	0.5	0.1
254 SAUGUS									
TOTAL ALL	1980	645.0	13.7	4.4	0.0	0.0	4.3	4.2	0.6
TOTAL ALL	1990	553.4	13.4	3.6	0.0	0.0	4.4	4.9	0.6
TOTAL ALL	2000	525.5	13.2	3.3	0.0	0.0	4.5	5.5	0.6
TOTAL ALL	2020	508.5	15.5	3.0	0.0	0.0	4.9	7.0	0.6

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MEGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
255 SWAMPSCOTT									
TOTAL ALL	1980	82.0	8.3	0.6	0.0	0.0	2.8	4.6	0.3
TOTAL ALL	1990	51.9	7.7	0.4	0.0	0.0	2.5	4.6	0.3
TOTAL ALL	2000	37.1	7.4	0.2	0.0	0.0	2.4	4.5	0.3
TOTAL ALL	2020	20.9	6.5	0.1	0.0	0.0	2.1	4.2	0.2
261 MARLBOROUGH									
TOTAL ALL	1980	6502.0	273.2	45.7	0.0	0.0	104.4	110.4	12.9
TOTAL ALL	1990	8710.2	362.5	58.2	0.0	0.0	128.8	160.3	15.3
TOTAL ALL	2000	10572.3	452.5	67.7	0.0	0.0	150.2	215.5	17.5
TOTAL ALL	2020	12753.7	607.8	76.3	0.0	0.0	191.2	312.0	21.3
262 ASHLAND									
TOTAL ALL	1980	1255.0	37.6	0.6	0.0	0.0	8.2	27.4	0.8
TOTAL ALL	1990	1772.1	41.4	0.5	0.0	0.0	9.3	30.8	0.8
TOTAL ALL	2000	1710.0	49.0	0.5	0.0	0.0	10.2	36.4	0.9
TOTAL ALL	2020	1700.7	66.4	0.5	0.0	0.0	13.2	51.6	1.2
263 FRAMINGHAM									
TOTAL ALL	1980	10476.0	634.9	73.3	0.0	0.0	256.9	243.9	60.6
TOTAL ALL	1990	11902.0	746.3	79.1	0.0	0.0	298.8	305.0	63.5
TOTAL ALL	2000	12240.6	822.0	77.9	0.0	0.0	324.3	354.3	65.1
TOTAL ALL	2020	11337.[illegible]	934.2	67.3	0.0	0.0	364.1	429.1	73.6
265 HUDSON									
TOTAL ALL	1980	3043.0	64.9	21.2	0.0	0.0	18.7	23.2	1.6
TOTAL ALL	1990	3232.8	76.5	21.4	0.0	0.0	21.3	31.9	1.9
TOTAL ALL	2000	3301.2	86.5	21.0	0.0	0.0	23.4	40.1	2.1
TOTAL ALL	2020	3198.6	99.1	19.0	0.0	0.0	26.6	51.2	2.4
268 NATICK									
TOTAL ALL	1980	3796.0	89.3	26.5	0.0	0.0	26.6	31.8	4.5
TOTAL ALL	1990	4389.9	101.6	29.2	0.0	0.0	29.6	38.4	4.4
TOTAL ALL	2000	4808.2	114.9	30.7	0.0	0.0	33.3	46.3	4.6
TOTAL ALL	2020	5030.0	134.9	30.0	0.0	0.0	40.9	58.8	5.2
269 NORTHBOROUGH									
TOTAL ALL	1980	836.0	29.4	5.8	0.0	0.0	7.7	15.0	0.9
TOTAL ALL	1990	884.2	34.5	5.8	0.0	0.0	8.7	18.9	1.1
TOTAL ALL	2000	1016.5	42.5	6.4	0.0	0.0	10.2	24.6	1.3
TOTAL ALL	2020	1376.1	66.3	8.1	0.0	0.0	15.1	41.3	1.9
272 SOUTHBOROUGH									
TOTAL ALL	1980	5423.0	48.4	7.6	0.0	0.0	11.5	27.7	1.5
TOTAL ALL	1990	8285.1	73.4	10.5	0.0	0.0	16.8	44.2	2.2
TOTAL ALL	2000	11332.8	108.1	13.7	0.0	0.0	23.5	67.9	3.0
TOTAL ALL	2020	15950.0	187.5	17.6	0.0	0.0	39.9	125.1	5.1

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
297 HOPKINTON									
TOTAL ALL	1980	229.0	16.1	1.6	0.0	0.0	6.2	7.3	0.9
TOTAL ALL	1990	233.0	18.3	1.6	0.0	0.0	7.0	9.0	0.8
TOTAL ALL	2000	229.2	20.4	1.5	0.0	0.0	7.5	10.6	0.9
TOTAL ALL	2020	205.2	23.1	1.2	0.0	0.0	8.1	12.9	0.9
342 AMHERST									
TOTAL ALL	1980	177.0	4.9	1.1	0.0	0.0	2.9	0.5	0.1
TOTAL ALL	1990	206.9	5.2	1.3	0.0	0.0	3.3	0.5	0.1
TOTAL ALL	2000	230.5	5.7	1.4	0.0	0.0	3.6	0.5	0.1
TOTAL ALL	2020	212.5	5.7	1.1	0.0	0.0	3.8	0.7	0.1
351 NORWOOD									
TOTAL ALL	1980	10342.0	439.3	72.2	0.0	0.0	160.4	200.0	6.3
TOTAL ALL	1990	13907.5	552.2	92.3	0.0	0.0	213.3	239.9	7.8
TOTAL ALL	2000	16512.4	689.7	105.1	0.0	0.0	265.0	310.0	9.6
TOTAL ALL	2020	18414.2	901.7	109.4	0.0	0.0	339.0	440.1	13.2
352 CANTON									
TOTAL ALL	1980	5197.0	121.7	36.4	0.0	0.0	31.8	50.3	3.1
TOTAL ALL	1990	6440.7	151.4	42.9	0.0	0.0	40.5	74.4	3.7
TOTAL ALL	2000	7199.6	193.9	45.8	0.0	0.0	47.1	95.9	4.1
TOTAL ALL	2020	7503.5	231.5	44.6	0.0	0.0	55.2	127.0	4.7
361 DEDHAM									
TOTAL ALL	1980	2280.0	95.7	16.9	0.0	0.0	63.8	15.3	1.5
TOTAL ALL	1990	2096.2	95.1	13.9	0.0	0.0	61.9	17.7	1.5
TOTAL ALL	2000	2035.9	97.3	13.0	0.0	0.0	62.5	19.9	1.8
TOTAL ALL	2020	1934.1	104.7	11.5	0.0	0.0	66.5	24.7	2.0
370 WESTWOOD									
TOTAL ALL	1980	807.9	55.5	5.6	0.0	0.0	21.9	24.9	3.1
TOTAL ALL	1990	873.9	67.9	5.8	0.0	0.0	25.9	32.5	3.5
TOTAL ALL	2000	913.2	79.2	5.9	0.0	0.0	29.2	40.3	3.9
TOTAL ALL	2020	979.1	101.5	5.9	0.0	0.0	36.9	54.3	4.4
421 QUINCY									
TOTAL ALL	1980	9517.0	676.9	66.5	0.0	0.0	355.5	189.2	64.8
TOTAL ALL	1990	7453.8	573.3	49.5	0.0	0.0	360.4	202.4	61.0
TOTAL ALL	2000	6944.4	715.9	43.6	0.0	0.0	380.8	231.1	60.2
TOTAL ALL	2020	7076.2	928.5	42.1	0.0	0.0	445.4	321.0	70.0
422 BRAINTREE									
TOTAL ALL	1980	4677.0	102.4	32.6	0.0	0.0	37.6	29.5	2.4
TOTAL ALL	1990	4859.9	118.9	32.2	0.0	0.0	44.2	33.5	2.9
TOTAL ALL	2000	4951.4	134.6	31.4	0.0	0.0	50.6	49.2	3.4
TOTAL ALL	2020	4627.1	150.1	27.4	0.0	0.0	61.7	65.5	4.5

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MEGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
420 MILTON									
TOTAL ALL	1980	260.0	25.9	1.9	0.0	0.0	9.0	12.5	2.5
TOTAL ALL	1990	220.9	27.5	1.5	0.0	0.0	9.4	14.1	2.6
TOTAL ALL	2000	191.9	28.5	1.3	0.0	0.0	9.4	15.3	2.5
TOTAL ALL	2020	131.8	27.1	0.9	0.0	0.0	8.9	15.1	2.4
410 DANVERS									
TOTAL ALL	1980	3209.0	185.0	22.5	0.0	0.0	85.5	67.5	9.6
TOTAL ALL	1990	3202.3	206.5	21.3	0.0	0.0	90.9	81.2	10.1
TOTAL ALL	2000	3250.7	232.8	20.7	0.0	0.0	98.1	103.2	10.8
TOTAL ALL	2020	3650.2	316.5	21.7	0.0	0.0	128.0	153.3	13.6
418 MARBLEHEAD									
TOTAL ALL	1980	817.0	15.3	5.8	0.0	0.0	4.1	5.4	0.1
TOTAL ALL	1990	850.7	18.1	5.7	0.0	0.0	4.5	7.8	0.1
TOTAL ALL	2000	891.6	20.5	5.9	0.0	0.0	4.8	9.9	0.1
TOTAL ALL	2020	897.6	23.9	5.4	0.0	0.0	5.3	12.9	0.2
412 MIDDLETON									
TOTAL ALL	1980	703.0	39.9	4.9	0.0	0.0	10.7	22.4	1.7
TOTAL ALL	1990	965.0	55.4	6.4	0.0	0.0	14.0	32.8	2.2
TOTAL ALL	2000	1221.9	75.1	7.7	0.0	0.0	17.8	45.7	2.8
TOTAL ALL	2020	1596.4	119.2	9.4	0.0	0.0	26.6	79.1	4.1
420 PEABODY									
TOTAL ALL	1980	3255.0	391.2	27.7	0.0	0.0	196.3	119.0	39.5
TOTAL ALL	1990	3705.6	393.1	24.6	0.0	0.0	176.1	140.3	42.1
TOTAL ALL	2000	3699.6	414.1	23.5	0.0	0.0	172.6	170.4	47.5
TOTAL ALL	2020	3380.3	472.4	20.1	0.0	0.0	172.6	220.3	59.3
430 CHICOPEE									
TOTAL ALL	1980	7330.0	1418.3	51.4	0.0	0.0	603.3	733.2	25.3
TOTAL ALL	1990	6297.5	1548.9	42.6	0.0	0.0	619.1	899.8	27.4
TOTAL ALL	2000	5843.7	1777.0	37.3	0.0	0.0	646.3	1063.5	29.9
TOTAL ALL	2020	4757.2	2109.2	28.5	0.0	0.0	697.3	1346.1	37.4
450 WARE									
TOTAL ALL	1980	1091.0	33.9	7.6	0.0	0.0	16.7	8.4	1.4
TOTAL ALL	1990	916.8	33.9	6.1	0.0	0.0	16.7	9.6	1.3
TOTAL ALL	2000	817.3	33.7	5.2	0.0	0.0	16.5	10.7	1.3
TOTAL ALL	2020	649.0	33.6	3.9	0.0	0.0	16.0	12.4	1.2
455 WILBRAHAM									
TOTAL ALL	1980	1183.0	57.9	8.3	0.0	0.0	17.8	26.9	4.1
TOTAL ALL	1990	1163.7	56.2	7.8	0.0	0.0	20.0	33.9	4.6
TOTAL ALL	2000	1079.6	71.2	6.9	0.0	0.0	21.0	38.7	4.7
TOTAL ALL	2020	784.2	67.7	4.7	0.0	0.0	19.8	38.9	4.3

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MEGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
471 WALTHAM									
TOTAL ALL	1980	26469.0	1348.1	185.1	0.0	0.0	733.4	374.9	54.1
TOTAL ALL	1990	27605.6	1501.6	183.3	0.0	0.0	844.6	490.1	63.6
TOTAL ALL	2000	28632.0	1819.1	182.1	0.0	0.0	947.5	615.9	72.5
TOTAL ALL	2020	32369.0	2474.4	192.3	0.0	0.0	1240.3	943.1	98.8
472 ACTON									
TOTAL ALL	1980	1044.0	68.1	7.3	0.0	0.0	21.8	35.9	2.0
TOTAL ALL	1990	1159.1	80.2	7.7	0.0	0.0	25.4	44.9	2.1
TOTAL ALL	2000	1231.5	92.4	7.8	0.0	0.0	28.4	53.7	2.5
TOTAL ALL	2020	1221.6	114.7	7.2	0.0	0.0	33.4	71.3	2.9
473 BEDFORD									
TOTAL ALL	1980	8222.0	130.8	57.5	0.0	0.0	32.0	37.3	3.8
TOTAL ALL	1990	8644.7	155.5	57.4	0.0	0.0	41.0	52.5	4.6
TOTAL ALL	2000	9019.4	183.7	57.4	0.0	0.0	50.0	70.9	5.4
TOTAL ALL	2020	9915.4	260.9	59.0	0.0	0.0	71.0	113.3	7.7
474 LEXINGTON									
TOTAL ALL	1980	6435.0	172.9	44.9	0.0	0.0	72.3	52.2	3.9
TOTAL ALL	1990	9370.4	251.3	62.2	0.0	0.0	103.5	93.3	4.7
TOTAL ALL	2000	11443.8	326.8	72.9	0.0	0.0	133.1	114.6	6.3
TOTAL ALL	2020	12920.0	451.0	76.8	0.0	0.0	191.7	183.0	9.5
475 WESTON									
TOTAL ALL	1980	86.0	5.7	0.6	0.0	0.0	1.9	3.1	0.1
TOTAL ALL	1990	93.5	5.0	0.6	0.0	0.0	2.1	2.3	0.1
TOTAL ALL	2000	93.5	5.4	0.6	0.0	0.0	2.4	2.3	0.1
TOTAL ALL	2020	91.0	5.8	0.6	0.0	0.0	2.6	2.6	0.1
481 WOBURN									
TOTAL ALL	1980	5263.0	404.6	36.7	0.0	0.0	140.5	210.6	16.5
TOTAL ALL	1990	5988.9	515.6	39.7	0.0	0.0	167.7	288.0	20.2
TOTAL ALL	2000	6501.2	625.6	41.3	0.0	0.0	191.3	362.7	23.4
TOTAL ALL	2020	7131.5	836.4	42.3	0.0	0.0	238.1	525.0	30.9
482 NORTH READING									
TOTAL ALL	1980	61.0	2.1	0.5	0.0	0.0	0.6	1.0	0.1
TOTAL ALL	1990	63.8	2.5	0.5	0.0	0.0	0.7	1.2	0.1
TOTAL ALL	2000	72.0	2.9	0.5	0.0	0.0	0.7	1.5	0.1
TOTAL ALL	2020	95.4	4.1	0.5	0.0	0.0	1.0	2.6	0.1
483 STONEHAM									
TOTAL ALL	1980	1658.0	314.2	11.6	0.0	0.0	342.9	26.9	3.4
TOTAL ALL	1990	1978.3	435.8	13.1	0.0	0.0	382.0	37.5	4.1
TOTAL ALL	2000	2164.0	570.3	13.8	0.0	0.0	401.5	50.2	4.8
TOTAL ALL	2020	2245.2	490.9	13.3	0.0	0.0	387.4	74.0	5.2

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MEGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
495 WILMINGTON									
TOTAL ALL	1980	8806.0	317.9	61.5	0.0	0.0	91.1	156.4	8.7
TOTAL ALL	1990	12422.6	416.9	82.6	0.0	0.0	108.5	215.5	10.4
TOTAL ALL	2000	15390.1	519.4	98.0	0.0	0.0	127.0	282.2	12.2
TOTAL ALL	2020	18560.7	725.0	110.4	0.0	0.0	178.9	419.1	17.5
497 WINCHESTER									
TOTAL ALL	1980	935.0	44.5	6.5	0.0	0.0	20.5	15.3	1.1
TOTAL ALL	1990	939.9	50.9	6.2	0.0	0.0	22.3	21.1	1.3
TOTAL ALL	2000	968.5	58.5	6.2	0.0	0.0	24.4	26.5	1.4
TOTAL ALL	2020	1041.8	76.9	6.3	0.0	0.0	30.1	38.5	1.9
501 WORCESTER									
TOTAL ALL	1980	28604.0	2718.1	199.4	0.0	0.0	1173.9	1273.8	71.1
TOTAL ALL	1990	23559.5	2905.2	155.5	0.0	0.0	1160.0	1418.4	71.3
TOTAL ALL	2000	21561.1	2925.6	136.3	0.0	0.0	1158.9	1557.0	73.3
TOTAL ALL	2020	20194.5	3221.7	119.3	0.0	0.0	1210.2	1807.4	84.9
507 MOLDEN									
TOTAL ALL	1980	1087.0	27.6	7.6	0.0	0.0	7.4	11.9	0.7
TOTAL ALL	1990	1147.7	32.9	7.6	0.0	0.0	8.3	15.1	0.9
TOTAL ALL	2000	1241.5	38.9	7.9	0.0	0.0	9.4	20.6	1.0
TOTAL ALL	2020	1437.0	51.3	8.5	0.0	0.0	12.2	29.3	1.3
514 PAXTON									
TOTAL ALL	1980	10.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
TOTAL ALL	1990	9.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0
TOTAL ALL	2000	8.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0
TOTAL ALL	2020	6.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0
515 RUTLAND									
TOTAL ALL	1980	127.0	2.7	0.9	0.0	0.0	0.9	0.6	0.2
TOTAL ALL	1990	104.9	2.5	0.7	0.0	0.0	0.9	0.7	0.2
TOTAL ALL	2000	91.4	2.4	0.6	0.0	0.0	0.9	0.7	0.2
TOTAL ALL	2020	79.7	2.5	0.5	0.0	0.0	0.9	0.9	0.2
518 WESTBOROUGH									
TOTAL ALL	1980	5357.0	181.4	28.9	0.0	0.0	56.9	90.1	6.4
TOTAL ALL	1990	6747.4	203.5	35.0	0.0	0.0	59.8	102.0	6.7
TOTAL ALL	2000	7410.3	212.2	37.9	0.0	0.0	60.2	107.6	6.6
TOTAL ALL	2020	7749.9	210.1	38.8	0.0	0.0	59.4	105.5	6.4
521 SPECIAL USERS									
522 LYNNFIELD CAD									
700 FULL SUP MDC MEMB									
TOTAL ALL	1980	138010.0	11116.6	951.8	0.0	0.0	5560.1	4216.6	384.0
TOTAL ALL	1990	136038.3	12266.4	984.6	0.0	0.0	5710.2	5277.2	394.4
TOTAL ALL	2000	140119.9	13856.9	970.1	0.0	0.0	6008.8	6562.8	415.2
TOTAL ALL	2020	144921.5	17165.5	938.1	0.0	0.0	6771.4	9069.3	486.7

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
71. FULL SUP NON-MEMB									
TOTAL ALL	1980	19039.0	2052.5	102.9	0.0	0.0	854.8	1055.1	39.9
TOTAL ALL	1990	21725.0	2372.2	100.1	0.0	0.0	909.4	1326.3	43.3
TOTAL ALL	2000	24263.1	2703.6	96.2	0.0	0.0	957.2	1602.1	48.1
TOTAL ALL	2020	26989.9	3255.3	83.4	0.0	0.0	1046.4	2065.5	59.2
720. TOT FULL SUP BY MDC									
TOTAL ALL	1980	157049.0	13169.1	1054.7	0.0	0.0	6414.9	5271.7	422.9
TOTAL ALL	1990	157763.4	14545.6	984.9	0.0	0.0	6519.6	6303.5	437.7
TOTAL ALL	2000	164381.9	16560.5	966.3	0.0	0.0	6966.0	8104.9	463.3
TOTAL ALL	2020	171911.5	20421.0	921.6	0.0	0.0	7817.8	11135.7	545.9
730. PART SUP MDC MEMB									
TOTAL ALL	1980	39964.0	2334.0	279.4	0.0	0.0	983.7	1145.2	175.7
TOTAL ALL	1990	41754.9	2944.6	277.2	0.0	0.0	1048.1	1423.9	120.5
TOTAL ALL	2000	44096.9	3353.6	280.5	0.0	0.0	1126.3	1742.3	204.5
TOTAL ALL	2020	45941.1	4241.7	273.0	0.0	0.0	1321.8	2423.1	223.9
740. PART SUP NON-MEMB									
TOTAL ALL	1980	53770.0	4812.2	375.6	0.0	0.0	1931.2	2349.7	155.5
TOTAL ALL	1990	52639.4	5456.4	348.9	0.0	0.0	2069.0	2876.0	162.5
TOTAL ALL	2000	52842.2	6068.1	335.6	0.0	0.0	2171.0	3392.1	169.4
TOTAL ALL	2020	52475.3	7144.2	311.3	0.0	0.0	2382.7	4254.2	196.0
750. TOT PART SUP BY MDC									
TOTAL ALL	1980	93734.0	7327.1	654.9	0.0	0.0	2914.9	3495.0	331.4
TOTAL ALL	1990	94393.1	8400.9	626.0	0.0	0.0	3117.1	4304.9	353.0
TOTAL ALL	2000	96946.1	9421.7	616.0	0.0	0.0	3297.3	5134.4	373.9
TOTAL ALL	2020	98417.2	11335.9	584.3	0.0	0.0	3704.5	6677.3	419.8
760. TOT ALL AA COMMUN									
TOTAL ALL	1980	250783.0	20566.2	1709.6	0.0	0.0	9329.8	9766.7	754.3
TOTAL ALL	1990	252155.4	23046.6	1510.9	0.0	0.0	9736.7	10209.4	790.7
TOTAL ALL	2000	261328.0	25982.1	1582.4	0.0	0.0	10263.2	13290.4	837.2
TOTAL ALL	2020	270328.7	31306.0	1505.9	0.0	0.0	11522.2	17913.1	965.7
800. PLN AREA NON-MDC									
TOTAL ALL	1980	83489.0	3919.2	564.7	0.0	0.0	1427.9	1650.0	124.5
TOTAL ALL	1990	86417.4	4310.9	556.5	0.0	0.0	1531.0	2025.9	137.5
TOTAL ALL	2000	90043.9	4879.2	561.9	0.0	0.0	1648.5	2462.9	215.9
TOTAL ALL	2020	96349.9	6237.9	559.5	0.0	0.0	1972.5	3459.0	246.8
810. PLN AREA COMD USE									
TOTAL ALL	1980	13286.0	725.5	118.1	0.0	0.0	212.0	371.2	23.6
TOTAL ALL	1990	19832.7	931.1	120.1	0.0	0.0	261.4	520.6	29.0
TOTAL ALL	2000	22064.8	1134.5	127.0	0.0	0.0	317.2	705.1	35.3
TOTAL ALL	2020	27074.0	1732.2	145.2	0.0	0.0	458.8	1126.5	51.7

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL MFGS

		EMPLOY	TOTAL	SANITARY USES EMP RLD	IMPOP RL	OTHER	COOLING	PROCESS	MISC
020 TOTAL NON-MDC									
TOTAL ALL	1980	101774.0	4664.7	682.8	0.0	0.0	1639.9	2021.2	219.1
TOTAL ALL	1990	106250.6	5241.9	676.6	0.0	0.0	1792.3	2546.5	226.4
TOTAL ALL	2000	112908.7	6063.7	688.9	0.0	0.0	1965.6	3168.0	241.2
TOTAL ALL	2020	123423.3	8020.0	704.7	0.0	0.0	2431.3	4585.6	298.5
200 TOTAL PLAN AREA									
TOTAL ALL	1980	352557.0	25130.9	2392.4	0.0	0.0	10969.7	10797.8	972.4
TOTAL ALL	1990	358407.2	28288.4	2287.4	0.0	0.0	11529.0	13454.9	1017.1
TOTAL ALL	2000	374236.7	32045.8	2271.3	0.0	0.0	12228.9	16467.3	1078.4
TOTAL ALL	2020	393752.6	39326.9	2210.5	0.0	0.0	13953.5	22399.6	1264.2

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
51 BOSTON									
TOTAL ALL	1980	453214.0	11292.2	3039.7	1058.5	5487.4	2396.4	0.0	0.0
TOTAL ALL	1990	473181.6	11922.1	3013.1	1069.0	5483.9	2356.1	0.0	0.0
TOTAL ALL	2000	488909.8	11400.2	2985.4	1063.4	5452.8	2298.5	0.0	0.0
TOTAL ALL	2020	526421.9	12337.6	3403.1	1074.7	5443.0	2416.7	0.0	0.0
52 BROOKLINE									
TOTAL ALL	1980	16685.0	294.0	116.7	69.3	49.2	58.8	0.0	0.0
TOTAL ALL	1990	19687.1	309.6	130.7	70.0	49.2	59.7	0.0	0.0
TOTAL ALL	2000	21102.6	311.7	134.2	69.6	48.9	58.9	0.0	0.0
TOTAL ALL	2020	25650.5	333.8	152.4	70.4	48.9	62.2	0.0	0.0
53 CAMBRIDGE									
TOTAL ALL	1980	75784.0	2055.8	525.8	382.4	736.4	411.1	0.0	0.0
TOTAL ALL	1990	97822.0	2196.6	644.6	386.2	736.0	429.8	0.0	0.0
TOTAL ALL	2000	108053.6	2236.5	682.2	384.2	731.8	428.4	0.0	0.0
TOTAL ALL	2020	131042.1	2345.5	772.7	388.2	730.5	454.1	0.0	0.0
52 ARLINGTON									
TOTAL ALL	1980	7345.0	118.6	51.5	10.5	33.1	23.7	0.0	0.0
TOTAL ALL	1990	8665.5	125.5	57.7	10.6	33.0	24.2	0.0	0.0
TOTAL ALL	2000	9439.3	127.5	60.2	10.5	32.8	24.0	0.0	0.0
TOTAL ALL	2020	11529.1	137.5	68.7	10.7	32.7	25.4	0.0	0.0
53 BELMONT									
TOTAL ALL	1980	6201.0	190.7	43.4	14.1	95.0	38.1	0.0	0.0
TOTAL ALL	1990	8309.8	204.0	55.3	14.2	94.9	40.3	0.0	0.0
TOTAL ALL	2000	9419.3	209.1	60.0	14.2	94.4	40.6	0.0	0.0
TOTAL ALL	2020	11449.6	219.0	68.1	14.3	94.2	43.1	0.0	0.0
71 MALDEN									
TOTAL ALL	1980	16001.0	319.7	112.0	20.3	114.8	61.8	0.0	0.0
TOTAL ALL	1990	19498.1	328.0	129.6	20.5	114.7	63.2	0.0	0.0
TOTAL ALL	2000	21639.9	330.9	134.0	20.4	114.0	62.5	0.0	0.0
TOTAL ALL	2020	25520.7	352.3	151.8	20.6	113.8	66.1	0.0	0.0
72 EVERETT									
TOTAL ALL	1980	8675.0	732.3	60.8	5.6	519.6	146.5	0.0	0.0
TOTAL ALL	1990	10117.5	741.3	67.4	5.7	519.3	149.0	0.0	0.0
TOTAL ALL	2000	10783.4	737.2	68.8	5.6	516.3	146.4	0.0	0.0
TOTAL ALL	2020	13101.9	753.5	78.1	5.7	515.4	154.4	0.0	0.0
73 MELROSE									
TOTAL ALL	1980	5228.0	66.0	29.0	8.0	15.0	13.0	0.0	0.0
TOTAL ALL	1990	6934.9	72.8	35.9	8.1	14.9	13.8	0.0	0.0
TOTAL ALL	2000	7872.5	75.2	39.1	8.1	14.9	13.9	0.0	0.0
TOTAL ALL	2020	9584.2	82.3	44.6	8.1	14.8	14.8	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	SANITARY USES INPOP RL	OTHER	COOLING	PROCESS	MISC
75 WAKEFIELD									
TOTAL ALL	1980	7754.0	25.1	16.6	3.5	0.0	5.0	0.0	0.0
TOTAL ALL	1990	8703.6	26.1	17.6	3.5	0.0	5.0	0.0	0.0
TOTAL ALL	2000	9172.0	26.3	17.8	3.5	0.0	4.9	0.0	0.0
TOTAL ALL	2020	11174.3	29.1	20.3	3.6	0.0	5.2	0.0	0.0
81 MEDFORD									
TOTAL ALL	1980	14001.0	192.6	77.5	34.1	42.5	38.6	0.0	0.0
TOTAL ALL	1990	16546.2	202.4	86.3	34.4	42.5	39.2	0.0	0.0
TOTAL ALL	2000	17811.3	204.4	89.3	34.2	42.2	38.7	0.0	0.0
TOTAL ALL	2020	21673.7	219.2	101.6	34.6	42.1	40.9	0.0	0.0
91 NEWTON									
TOTAL ALL	1980	35263.0	516.8	184.5	118.1	110.9	103.4	0.0	0.0
TOTAL ALL	1990	48671.8	592.9	242.3	119.2	110.7	110.6	0.0	0.0
TOTAL ALL	2000	55353.2	604.1	264.0	118.5	110.1	111.6	0.0	0.0
TOTAL ALL	2020	67113.0	647.3	298.9	119.8	109.9	118.7	0.0	0.0
92 NEEDHAM									
TOTAL ALL	1980	11739.0	156.6	79.6	8.8	36.8	31.3	0.0	0.0
TOTAL ALL	1990	14639.5	172.2	94.2	8.9	36.8	32.3	0.0	0.0
TOTAL ALL	2000	16015.2	176.3	98.8	8.8	36.6	32.1	0.0	0.0
TOTAL ALL	2020	19442.8	191.5	112.1	8.9	36.5	34.0	0.0	0.0
93 WATERTOWN									
TOTAL ALL	1980	10550.0	123.4	21.3	5.3	72.0	24.6	0.0	0.0
TOTAL ALL	1990	10456.7	121.2	20.1	5.4	71.9	23.8	0.0	0.0
TOTAL ALL	2000	10589.6	119.4	19.5	5.3	71.5	23.0	0.0	0.0
TOTAL ALL	2020	12912.4	123.1	22.3	5.4	71.4	24.1	0.0	0.0
94 WELLESLEY									
TOTAL ALL	1980	14726.0	192.4	71.9	69.5	4.6	36.5	0.0	0.0
TOTAL ALL	1990	23102.1	220.4	105.2	70.2	4.6	40.5	0.0	0.0
TOTAL ALL	2000	27897.4	237.7	121.4	69.8	4.6	41.0	0.0	0.0
TOTAL ALL	2020	33814.7	257.7	137.7	70.6	4.6	44.9	0.0	0.0
1 ARNOLD									
TOTAL ALL	1980	2077.0	15.3	8.9	3.4	0.0	3.0	0.0	0.0
TOTAL ALL	1990	2488.3	16.5	10.0	3.4	0.0	3.1	0.0	0.0
TOTAL ALL	2000	2707.5	16.9	10.4	3.4	0.0	3.0	0.0	0.0
TOTAL ALL	2020	3292.5	18.6	11.9	3.5	0.0	3.2	0.0	0.0
11 SOMERVILLE									
TOTAL ALL	1980	14456.0	352.0	81.3	50.7	149.5	70.3	0.0	0.0
TOTAL ALL	1990	14333.1	345.5	76.5	51.2	149.5	68.3	0.0	0.0
TOTAL ALL	2000	14486.2	340.2	74.6	51.0	148.6	66.1	0.0	0.0
TOTAL ALL	2020	17652.5	354.0	85.0	51.5	148.3	69.2	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
111 BROCKTON									
TOTAL ALL	1980	29704.0	328.9	141.3	43.4	78.4	65.7	0.0	0.0
TOTAL ALL	1990	33648.5	339.0	150.7	43.9	78.4	66.1	0.0	0.0
TOTAL ALL	2000	36010.1	341.7	155.3	43.6	77.9	65.1	0.0	0.0
TOTAL ALL	2020	43977.3	368.2	177.6	44.1	77.8	68.6	0.0	0.0
113 AVON									
TOTAL ALL	1980	2002.0	12.6	10.0	0.0	0.0	2.5	0.0	0.0
TOTAL ALL	1990	3186.9	17.9	15.2	0.0	0.0	2.8	0.0	0.0
TOTAL ALL	2000	3882.5	20.5	17.7	0.0	0.0	2.9	0.0	0.0
TOTAL ALL	2020	4707.3	23.1	20.1	0.0	0.0	3.1	0.0	0.0
118 EASTON									
TOTAL ALL	1980	3250.0	71.9	22.7	4.1	30.8	14.4	0.0	0.0
TOTAL ALL	1990	4859.7	83.0	32.3	4.1	30.8	15.9	0.0	0.0
TOTAL ALL	2000	5879.6	88.5	37.4	4.1	30.6	16.4	0.0	0.0
TOTAL ALL	2020	7160.2	94.9	42.5	4.2	30.6	17.6	0.0	0.0
123 HOLBROOK									
TOTAL ALL	1980	1870.0	25.1	13.1	1.4	5.5	5.0	0.0	0.0
TOTAL ALL	1990	1889.1	24.3	12.6	1.4	5.5	4.9	0.0	0.0
TOTAL ALL	2000	1936.9	23.9	12.3	1.4	5.5	4.7	0.0	0.0
TOTAL ALL	2020	2366.2	25.9	14.1	1.4	5.4	5.0	0.0	0.0
125 RANDOLPH									
TOTAL ALL	1980	5485.0	87.0	38.4	8.2	22.9	17.4	0.0	0.0
TOTAL ALL	1990	7882.8	102.4	52.5	8.3	22.9	18.8	0.0	0.0
TOTAL ALL	2000	9203.3	109.3	59.7	8.2	22.8	19.1	0.0	0.0
TOTAL ALL	2020	11177.0	118.1	66.6	8.3	22.7	20.4	0.0	0.0
133 STOUGHTON									
TOTAL ALL	1980	6276.0	34.2	22.3	5.1	0.0	6.7	0.0	0.0
TOTAL ALL	1990	9811.4	45.1	32.5	5.1	0.0	7.5	0.0	0.0
TOTAL ALL	2000	11929.8	50.7	37.8	5.1	0.0	7.7	0.0	0.0
TOTAL ALL	2020	14492.1	56.4	42.9	5.2	0.0	8.3	0.0	0.0
135 WHITMAN									
TOTAL ALL	1980	2303.0	8.5	5.3	1.4	0.0	1.7	0.0	0.0
TOTAL ALL	1990	2565.7	8.7	5.6	1.4	0.0	1.7	0.0	0.0
TOTAL ALL	2000	2735.3	8.9	5.7	1.4	0.0	1.7	0.0	0.0
TOTAL ALL	2020	3343.0	9.7	6.5	1.4	0.0	1.9	0.0	0.0
141 CHELSEA									
TOTAL ALL	1980	7096.0	167.9	49.7	19.2	65.5	33.6	0.0	0.0
TOTAL ALL	1990	7163.7	165.2	47.7	19.3	65.5	32.8	0.0	0.0
TOTAL ALL	2000	7337.2	163.0	46.8	19.2	65.1	31.9	0.0	0.0
TOTAL ALL	2020	8960.9	171.2	53.4	19.4	65.0	33.4	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
140 REVERE									
TOTAL ALL	1980	7326.0	118.1	51.3	11.4	31.9	23.7	0.0	0.0
TOTAL ALL	1990	7619.3	117.4	50.7	11.5	31.9	23.3	0.0	0.0
TOTAL ALL	2000	7885.0	116.1	50.2	11.5	31.7	22.7	0.0	0.0
TOTAL ALL	2020	9628.5	124.4	57.3	11.6	31.6	23.9	0.0	0.0
141 WINTHROP									
TOTAL ALL	1980	2465.0	98.0	17.2	9.2	52.0	19.6	0.0	0.0
TOTAL ALL	1990	2996.1	101.2	19.9	9.3	52.0	20.1	0.0	0.0
TOTAL ALL	2000	3321.9	102.0	21.1	9.2	51.7	20.0	0.0	0.0
TOTAL ALL	2020	4062.6	106.3	24.1	9.3	51.6	21.2	0.0	0.0
151 FITCHBURG									
TOTAL ALL	1980	11402.0	337.5	79.9	59.4	130.9	67.5	0.0	0.0
TOTAL ALL	1990	12493.[illegible]	341.1	83.1	60.0	130.8	67.2	0.0	0.0
TOTAL ALL	2000	13082.0	338.9	83.3	59.7	130.1	65.9	0.0	0.0
TOTAL ALL	2020	15933.1	354.3	94.8	60.3	129.9	69.3	0.0	0.0
152 CLINTON									
TOTAL ALL	1980	2233.0	39.6	15.6	3.6	12.4	7.9	0.0	0.0
TOTAL ALL	1990	2939.7	43.8	19.5	3.6	12.4	8.3	0.0	0.0
TOTAL ALL	2000	3325.2	45.4	21.1	3.6	12.3	8.3	0.0	0.0
TOTAL ALL	2020	4149.7	48.9	24.0	3.7	12.3	8.9	0.0	0.0
170 LANCASTER									
TOTAL ALL	1990	1408.0	11.0	5.1	3.7	0.0	2.2	0.0	0.0
TOTAL ALL	1990	2159.1	13.1	7.0	3.7	0.0	2.4	0.0	0.0
TOTAL ALL	2000	2619.7	14.3	8.0	3.7	0.0	2.5	0.0	0.0
TOTAL ALL	2020	3184.5	15.6	9.2	3.8	0.0	2.7	0.0	0.0
172 LEOMINSTER									
TOTAL ALL	1980	6949.0	75.2	45.6	12.7	1.9	15.0	0.0	0.0
TOTAL ALL	1990	7840.1	79.4	49.5	12.8	1.9	15.1	0.0	0.0
TOTAL ALL	2000	8324.7	79.9	50.4	12.8	1.9	14.9	0.0	0.0
TOTAL ALL	2020	10127.9	87.8	57.3	12.9	1.9	15.7	0.0	0.0
173 STERLING									
TOTAL ALL	1980	642.0	6.8	4.5	0.0	1.0	1.4	0.0	0.0
TOTAL ALL	1990	753.7	7.5	5.1	0.0	1.0	1.4	0.0	0.0
TOTAL ALL	2000	820.2	7.7	5.3	0.0	1.0	1.4	0.0	0.0
TOTAL ALL	2020	1002.2	8.5	6.0	0.0	1.0	1.5	0.0	0.0
223 SOUTH HADLEY FD1									
TOTAL ALL	1990	2125.0	47.9	14.9	3.4	19.9	9.5	0.0	0.0
TOTAL ALL	1990	2709.4	51.3	18.0	3.4	19.9	10.0	0.0	0.0
TOTAL ALL	2000	3044.7	52.6	19.4	3.4	19.8	10.0	0.0	0.0
TOTAL ALL	2020	3714.9	55.9	22.1	3.5	19.7	10.6	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
240 NORTH ANDOVER									
TOTAL ALL	1980	5347.0	2.1	0.9	0.8	0.0	0.4	0.0	0.0
TOTAL ALL	1990	8215.9	2.5	1.3	0.8	0.0	0.4	0.0	0.0
TOTAL ALL	2000	9825.2	2.7	1.4	0.8	0.0	0.5	0.0	0.0
TOTAL ALL	2020	11910.6	2.9	1.6	0.8	0.0	0.5	0.0	0.0
242 BILLERICA									
TOTAL ALL	1990	7551.0	122.2	43.8	15.8	38.2	24.4	0.0	0.0
TOTAL ALL	1990	11363.9	143.4	62.5	16.0	38.1	26.8	0.0	0.0
TOTAL ALL	2000	13753.8	154.0	72.4	15.9	37.9	27.8	0.0	0.0
TOTAL ALL	2020	16747.7	166.0	82.3	16.1	37.8	29.8	0.0	0.0
243 CHELMSFORD									
TOTAL ALL	1990	6239.0	134.8	43.6	7.6	56.6	26.9	0.0	0.0
TOTAL ALL	1990	9650.8	157.9	64.1	7.7	56.5	29.7	0.0	0.0
TOTAL ALL	2000	11721.1	169.1	74.5	7.6	56.2	30.7	0.0	0.0
TOTAL ALL	2020	14237.0	181.3	84.6	7.7	56.1	33.0	0.0	0.0
249 TYNGSBOROUGH									
TOTAL ALL	1980	1076.0	12.1	7.5	0.0	2.2	2.5	0.0	0.0
TOTAL ALL	1990	1247.7	13.1	8.3	0.0	2.2	2.5	0.0	0.0
TOTAL ALL	2000	1414.5	13.7	9.0	0.0	2.2	2.5	0.0	0.0
TOTAL ALL	2020	1750.2	15.3	10.4	0.0	2.2	2.7	0.0	0.0
251 LYNN									
TOTAL ALL	1980	19895.0	452.3	139.3	40.3	182.3	90.5	0.0	0.0
TOTAL ALL	1990	19722.3	441.9	131.2	40.7	192.2	87.9	0.0	0.0
TOTAL ALL	2000	19992.6	434.3	127.4	40.5	181.2	85.3	0.0	0.0
TOTAL ALL	2020	24385.3	456.3	145.1	40.9	180.8	89.4	0.0	0.0
252 LYNNFIELD									
TOTAL ALL	1980	2438.0	37.9	17.1	0.0	13.4	7.6	0.0	0.0
TOTAL ALL	1990	3284.5	43.1	21.7	0.0	13.4	8.0	0.0	0.0
TOTAL ALL	2000	3723.6	44.9	23.6	0.0	13.3	8.1	0.0	0.0
TOTAL ALL	2020	4523.6	48.6	26.7	0.0	13.3	8.5	0.0	0.0
253 NAHANT									
TOTAL ALL	1990	506.0	15.9	3.5	4.0	5.2	3.2	0.0	0.0
TOTAL ALL	1990	649.5	16.9	4.3	4.0	5.2	3.3	0.0	0.0
TOTAL ALL	2000	735.4	17.2	4.6	4.0	5.2	3.3	0.0	0.0
TOTAL ALL	2020	899.6	18.1	5.3	4.1	5.2	3.5	0.0	0.0
254 SAUGUS									
TOTAL ALL	1980	7457.0	136.3	30.0	3.6	115.5	37.2	0.0	0.0
TOTAL ALL	1990	8243.9	188.0	31.6	3.6	115.4	37.4	0.0	0.0
TOTAL ALL	2000	8666.3	136.7	31.9	3.6	114.8	36.5	0.0	0.0
TOTAL ALL	2020	10556.4	192.0	36.2	3.7	114.6	38.4	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP PLD	INDOR PL	OTHER	COOLING	PROCESS	MISC
260 SWAMPSCOTT									
TOTAL ALL	1980	2690.0	42.7	18.3	5.6	10.2	8.5	0.0	0.0
TOTAL ALL	1990	3354.6	46.3	21.7	5.7	10.2	8.9	0.0	0.0
TOTAL ALL	2000	3692.3	47.3	22.8	5.6	10.1	8.8	0.0	0.0
TOTAL ALL	2020	4492.0	51.0	26.0	5.7	10.1	9.3	0.0	0.0
261 MARLBOROUGH									
TOTAL ALL	1980	6248.0	130.8	43.7	21.0	80.0	36.2	0.0	0.0
TOTAL ALL	1990	9605.2	205.4	63.8	21.2	80.0	40.4	0.0	0.0
TOTAL ALL	2000	11657.4	216.8	74.2	21.1	79.5	42.0	0.0	0.0
TOTAL ALL	2020	14168.1	230.0	84.3	21.3	79.4	45.0	0.0	0.0
262 ASHLAND									
TOTAL ALL	1980	1726.0	1.4	1.0	0.1	0.0	0.3	0.0	0.0
TOTAL ALL	1990	2530.5	1.9	1.5	0.1	0.0	0.3	0.0	0.0
TOTAL ALL	2000	3201.6	2.1	1.7	0.1	0.0	0.3	0.0	0.0
TOTAL ALL	2020	3892.6	2.4	1.9	0.1	0.0	0.4	0.0	0.0
263 FRAMINGHAM									
TOTAL ALL	1980	28340.0	346.2	147.0	75.2	54.7	69.2	0.0	0.0
TOTAL ALL	1990	41836.9	408.4	202.3	75.9	54.7	75.5	0.0	0.0
TOTAL ALL	2000	49392.6	435.6	228.4	75.5	54.4	77.3	0.0	0.0
TOTAL ALL	2020	59558.2	472.7	259.4	76.3	54.3	82.6	0.0	0.0
264 HOPKINTON									
TOTAL ALL	1980	2390.0	13.1	9.7	0.8	0.0	2.7	0.0	0.0
TOTAL ALL	1990	2635.0	13.7	10.2	0.8	0.0	2.7	0.0	0.0
TOTAL ALL	2000	2800.0	13.8	10.4	0.8	0.0	2.7	0.0	0.0
TOTAL ALL	2020	3421.8	15.5	11.9	0.8	0.0	2.8	0.0	0.0
265 NATICK									
TOTAL ALL	1980	12587.0	73.7	53.3	5.7	0.0	14.7	0.0	0.0
TOTAL ALL	1990	12486.9	70.2	50.2	5.8	0.0	14.3	0.0	0.0
TOTAL ALL	2000	12712.4	68.7	49.2	5.7	0.0	13.9	0.0	0.0
TOTAL ALL	2020	15126.2	76.5	56.1	5.8	0.0	14.5	0.0	0.0
266 NORTHBOROUGH									
TOTAL ALL	1980	2352.0	23.6	14.7	3.8	0.5	4.7	0.0	0.0
TOTAL ALL	1990	3619.6	30.8	21.3	3.8	0.5	5.2	0.0	0.0
TOTAL ALL	2000	4392.7	34.4	24.7	3.8	0.5	5.4	0.0	0.0
TOTAL ALL	2020	5338.4	38.2	28.0	3.9	0.5	5.8	0.0	0.0
272 SOUTHBOROUGH									
TOTAL ALL	1980	1312.0	2.6	2.1	0.0	0.0	0.5	0.0	0.0
TOTAL ALL	1990	1405.9	2.6	2.1	0.0	0.0	0.5	0.0	0.0
TOTAL ALL	2000	1463.8	2.6	2.1	0.0	0.0	0.5	0.0	0.0
TOTAL ALL	2020	1784.5	2.9	2.4	0.0	0.0	0.5	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	SANITARY USES INPOP RL	OTHER	COOLING	PROCESS	MISC
237 HOPKINTON									
TOTAL ALL	1980	1436.0	26.9	10.0	1.0	10.5	5.4	0.0	0.0
TOTAL ALL	1990	2235.7	32.3	14.8	1.0	10.5	6.0	0.0	0.0
TOTAL ALL	2000	2718.5	34.9	17.2	1.0	10.4	6.2	0.0	0.0
TOTAL ALL	2020	3301.0	37.6	19.5	1.0	10.4	6.6	0.0	0.0
342 AMHERST									
TOTAL ALL	1980	10218.0	636.2	62.6	424.9	21.5	127.2	0.0	0.0
TOTAL ALL	1990	12903.4	660.0	72.2	429.1	21.5	127.2	0.0	0.0
TOTAL ALL	2000	15279.9	659.1	81.5	426.9	21.4	128.3	0.0	0.0
TOTAL ALL	2020	18865.6	684.0	94.3	431.4	21.3	136.9	0.0	0.0
351 NORWOOD									
TOTAL ALL	1980	12465.0	150.7	77.0	17.1	26.4	30.1	0.0	0.0
TOTAL ALL	1990	19172.4	182.0	112.1	17.3	26.4	33.2	0.0	0.0
TOTAL ALL	2000	22885.0	205.8	128.2	17.2	26.2	34.2	0.0	0.0
TOTAL ALL	2020	27730.0	225.3	145.1	17.4	26.2	36.6	0.0	0.0
352 CANTON									
TOTAL ALL	1980	9437.0	39.3	27.3	4.2	0.0	7.8	0.0	0.0
TOTAL ALL	1990	12336.9	50.2	37.5	4.2	0.0	8.5	0.0	0.0
TOTAL ALL	2000	14542.9	55.2	42.3	4.2	0.0	8.7	0.0	0.0
TOTAL ALL	2020	17665.2	61.5	48.0	4.3	0.0	9.3	0.0	0.0
353 DEDHAM									
TOTAL ALL	1980	10908.0	145.3	61.2	8.2	46.9	29.0	0.0	0.0
TOTAL ALL	1990	10565.2	145.1	61.3	8.3	46.9	28.6	0.0	0.0
TOTAL ALL	2000	10857.9	143.2	60.5	8.2	46.6	27.9	0.0	0.0
TOTAL ALL	2020	13203.3	152.3	68.8	8.3	46.5	29.2	0.0	0.0
370 MILTON									
TOTAL ALL	1980	3795.0	75.5	26.4	0.1	33.7	15.0	0.0	0.0
TOTAL ALL	1990	4559.8	79.4	30.2	0.1	33.7	15.3	0.0	0.0
TOTAL ALL	2000	4927.1	80.1	31.3	0.1	33.5	15.2	0.0	0.0
TOTAL ALL	2020	5989.4	85.1	35.5	0.1	33.5	16.0	0.0	0.0
401 QUINCY									
TOTAL ALL	1980	25168.0	469.0	169.7	44.3	161.3	93.8	0.0	0.0
TOTAL ALL	1990	25680.1	452.1	164.5	44.7	161.2	91.7	0.0	0.0
TOTAL ALL	2000	26299.5	455.5	161.5	44.5	160.3	89.3	0.0	0.0
TOTAL ALL	2020	32677.9	482.8	184.1	45.0	160.0	93.7	0.0	0.0
402 BRAINTREE									
TOTAL ALL	1980	18945.0	133.5	77.4	21.0	8.6	26.8	0.0	0.0
TOTAL ALL	1990	25942.9	158.9	100.5	21.2	8.6	28.5	0.0	0.0
TOTAL ALL	2000	29493.1	169.0	109.6	21.1	8.5	28.7	0.0	0.0
TOTAL ALL	2020	35787.9	184.5	124.2	21.3	8.5	30.6	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
420 MILTON									
TOTAL ALL	1980	4644.0	86.1	32.4	18.7	17.9	17.3	0.0	0.0
TOTAL ALL	1990	7169.7	103.3	47.6	18.8	17.8	19.1	0.0	0.0
TOTAL ALL	2000	8704.7	111.6	55.3	18.7	17.7	19.8	0.0	0.0
TOTAL ALL	2020	10575.9	120.5	62.8	18.9	17.7	21.2	0.0	0.0
421 DANVERS									
TOTAL ALL	1980	12215.0	151.0	68.9	28.5	23.4	30.2	0.0	0.0
TOTAL ALL	1990	16645.7	171.2	86.7	28.8	23.5	32.3	0.0	0.0
TOTAL ALL	2000	19362.8	181.2	96.5	28.6	23.4	32.8	0.0	0.0
TOTAL ALL	2020	23630.6	197.5	110.3	28.9	23.3	35.0	0.0	0.0
422 MARBLEHEAD									
TOTAL ALL	1980	3635.0	15.7	10.6	1.9	0.0	3.1	0.0	0.0
TOTAL ALL	1990	4377.6	17.2	12.1	1.9	0.0	3.2	0.0	0.0
TOTAL ALL	2000	4804.5	17.8	12.7	1.9	0.0	3.2	0.0	0.0
TOTAL ALL	2020	5865.9	19.8	14.5	1.9	0.0	3.3	0.0	0.0
423 MIDDLETON									
TOTAL ALL	1980	673.0	10.1	4.7	0.3	3.1	2.1	0.0	0.0
TOTAL ALL	1990	729.6	10.3	4.8	0.3	3.1	2.1	0.0	0.0
TOTAL ALL	2000	765.9	10.3	4.9	0.3	3.1	2.0	0.0	0.0
TOTAL ALL	2020	935.4	11.1	5.6	0.3	3.1	2.2	0.0	0.0
424 PEABODY									
TOTAL ALL	1980	12151.0	162.8	85.0	9.0	36.1	32.5	0.0	0.0
TOTAL ALL	1990	15098.2	179.0	100.4	9.1	36.0	33.5	0.0	0.0
TOTAL ALL	2000	16621.9	184.0	105.8	9.0	35.8	33.3	0.0	0.0
TOTAL ALL	2020	20230.7	200.5	120.3	9.1	35.7	35.3	0.0	0.0
435 CHICOPEE									
TOTAL ALL	1980	10377.0	216.7	52.9	25.2	95.3	43.4	0.0	0.0
TOTAL ALL	1990	12721.9	227.4	61.8	25.3	95.2	45.0	0.0	0.0
TOTAL ALL	2000	14086.1	230.2	65.5	25.2	94.7	44.8	0.0	0.0
TOTAL ALL	2020	17201.7	242.2	74.7	25.5	94.5	47.5	0.0	0.0
450 WARE									
TOTAL ALL	1980	1512.0	13.1	10.2	0.2	0.0	2.6	0.0	0.0
TOTAL ALL	1990	1913.3	15.2	12.3	0.2	0.0	2.7	0.0	0.0
TOTAL ALL	2000	2124.0	16.0	13.1	0.2	0.0	2.7	0.0	0.0
TOTAL ALL	2020	2585.5	18.0	14.9	0.2	0.0	2.9	0.0	0.0
455 WILBRAHAM									
TOTAL ALL	1980	1686.0	12.9	10.2	0.0	0.0	2.6	0.0	0.0
TOTAL ALL	1990	1959.4	13.9	11.3	0.0	0.0	2.6	0.0	0.0
TOTAL ALL	2000	2159.3	14.5	11.9	0.0	0.0	2.6	0.0	0.0
TOTAL ALL	2020	2651.4	16.4	13.6	0.0	0.0	2.8	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP PLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
471 WALTHAM									
TOTAL ALL	1980	31468.0	610.9	195.3	105.7	187.8	122.2	0.0	0.0
TOTAL ALL	1990	42789.9	676.5	252.3	106.6	187.7	130.0	0.0	0.0
TOTAL ALL	2000	48294.1	696.1	272.7	106.1	186.6	130.6	0.0	0.0
TOTAL ALL	2020	58542.4	741.1	308.8	107.2	186.3	139.9	0.0	0.0
472 ACTON									
TOTAL ALL	1980	4314.0	49.9	30.2	3.9	5.8	10.0	0.0	0.0
TOTAL ALL	1990	6704.4	55.4	44.6	3.9	5.8	11.0	0.0	0.0
TOTAL ALL	2000	8145.6	73.0	51.9	3.9	5.8	11.4	0.0	0.0
TOTAL ALL	2020	9893.6	90.9	58.9	4.0	5.8	12.3	0.0	0.0
473 BEDFORD									
TOTAL ALL	1980	6290.0	67.2	28.6	5.9	19.2	13.5	0.0	0.0
TOTAL ALL	1990	8892.0	77.5	38.0	6.0	19.2	14.4	0.0	0.0
TOTAL ALL	2000	10227.4	81.4	41.9	5.9	19.1	14.6	0.0	0.0
TOTAL ALL	2020	12405.9	88.0	47.5	6.0	19.0	15.5	0.0	0.0
475 LEXINGTON									
TOTAL ALL	1980	15076.0	456.1	74.1	32.0	258.9	91.2	0.0	0.0
TOTAL ALL	1990	21482.1	469.4	89.9	32.2	258.7	92.9	0.0	0.0
TOTAL ALL	2000	23567.4	477.1	94.5	32.0	257.3	93.6	0.0	0.0
TOTAL ALL	2020	28874.0	497.4	108.9	32.4	256.8	99.7	0.0	0.0
477 WESTON									
TOTAL ALL	1980	3045.0	51.3	19.4	20.1	1.4	10.2	0.0	0.0
TOTAL ALL	1990	3891.2	55.9	23.5	20.3	1.4	10.7	0.0	0.0
TOTAL ALL	2000	4337.9	57.4	25.1	20.2	1.4	10.7	0.0	0.0
TOTAL ALL	2020	5280.1	61.7	28.5	20.4	1.4	11.3	0.0	0.0
481 WOBURN									
TOTAL ALL	1980	17644.0	365.4	123.5	12.1	156.8	73.1	0.0	0.0
TOTAL ALL	1990	27602.6	433.4	183.4	12.2	156.6	81.1	0.0	0.0
TOTAL ALL	2000	33574.5	465.7	213.7	12.2	155.7	84.1	0.0	0.0
TOTAL ALL	2020	40754.4	500.2	242.3	12.3	155.4	90.2	0.0	0.0
483 NORTH READING									
TOTAL ALL	1980	2537.0	21.9	13.9	3.6	0.0	4.4	0.0	0.0
TOTAL ALL	1990	3868.3	28.2	19.7	3.6	0.0	4.8	0.0	0.0
TOTAL ALL	2000	4661.4	31.3	22.7	3.6	0.0	5.0	0.0	0.0
TOTAL ALL	2020	5662.6	34.8	25.8	3.7	0.0	5.3	0.0	0.0
49[illegible] STONEHAM									
TOTAL ALL	1980	5055.0	94.8	35.4	5.0	35.4	19.0	0.0	0.0
TOTAL ALL	1990	7118.1	108.0	47.2	5.0	35.4	20.4	0.0	0.0
TOTAL ALL	2000	8207.5	113.0	52.2	5.0	35.2	20.6	0.0	0.0
TOTAL ALL	2020	9961.9	121.3	59.1	5.1	35.1	22.0	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
496 WILMINGTON									
TOTAL ALL	1980	6287.0	164.1	33.1	0.0	98.2	32.9	0.0	0.0
TOTAL ALL	1990	6302.6	161.5	31.5	0.0	98.1	31.9	0.0	0.0
TOTAL ALL	2000	6382.3	158.7	30.3	0.0	97.6	30.8	0.0	0.0
TOTAL ALL	2020	7771.6	154.1	34.4	0.0	97.4	32.3	0.0	0.0
497 WINCHESTER									
TOTAL ALL	1980	4523.0	76.4	31.7	7.8	21.8	15.3	0.0	0.0
TOTAL ALL	1990	6817.3	91.7	45.3	7.9	21.8	16.9	0.0	0.0
TOTAL ALL	2000	8157.7	98.7	52.0	7.8	21.6	17.3	0.0	0.0
TOTAL ALL	2020	9908.3	106.9	59.0	7.9	21.6	18.5	0.0	0.0
501 WORCESTER									
TOTAL ALL	1980	72629.0	1615.9	481.7	295.2	515.9	323.2	0.0	0.0
TOTAL ALL	1990	83940.7	1659.7	528.0	298.1	515.5	327.0	0.0	0.0
TOTAL ALL	2000	89719.6	1672.2	541.0	296.6	512.6	322.0	0.0	0.0
TOTAL ALL	2020	109247.0	1766.9	615.5	299.7	511.7	339.9	0.0	0.0
507 HOLDEN									
TOTAL ALL	1980	2967.0	20.4	13.6	2.7	0.0	4.1	0.0	0.0
TOTAL ALL	1990	4479.1	26.2	19.0	2.7	0.0	4.5	0.0	0.0
TOTAL ALL	2000	5425.0	29.4	22.0	2.7	0.0	4.5	0.0	0.0
TOTAL ALL	2020	6602.0	32.8	25.1	2.7	0.0	5.0	0.0	0.0
513 PAXTON									
TOTAL ALL	1980	570.0	0.9	0.3	0.4	0.0	0.1	0.0	0.0
TOTAL ALL	1990	854.5	0.9	0.4	0.4	0.0	0.1	0.0	0.0
TOTAL ALL	2000	1034.2	0.9	0.4	0.4	0.0	0.1	0.0	0.0
TOTAL ALL	2020	1259.2	1.0	0.5	0.4	0.0	0.1	0.0	0.0
515 RUTLAND									
TOTAL ALL	1980	410.0	12.3	3.2	-0.4	12.7	3.9	0.0	0.0
TOTAL ALL	1990	471.1	12.7	3.4	-0.4	12.7	4.0	0.0	0.0
TOTAL ALL	2000	512.2	12.7	3.6	-0.4	12.6	3.9	0.0	0.0
TOTAL ALL	2020	627.4	20.4	4.1	-0.4	12.6	4.1	0.0	0.0
519 WESTBOROUGH									
TOTAL ALL	1980	5751.0	16.6	7.1	0.0	5.1	3.3	0.0	0.0
TOTAL ALL	1990	8278.6	20.0	10.3	0.0	6.1	3.6	0.0	0.0
TOTAL ALL	2000	9677.9	21.3	11.5	0.0	6.1	3.7	0.0	0.0
TOTAL ALL	2020	11754.4	23.9	13.0	0.0	6.1	4.0	0.0	0.0
521 SPECIAL USERS									
TOTAL ALL	1980	4520.0	379.5	31.6	50.3	221.6	75.9	0.0	0.0
TOTAL ALL	1990	4580.6	376.7	30.4	50.8	221.5	74.1	0.0	0.0
TOTAL ALL	2000	5238.1	378.3	33.3	50.5	220.2	74.2	0.0	0.0
TOTAL ALL	2020	6615.2	389.3	39.3	51.1	219.8	79.1	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP PLO	INPOP RL	OTHER	COOLING	PROCESS	MISC
620 LYNNFIELD CMD									
TOTAL ALL	1980	438.0	4.0	3.1	0.0	0.1	0.8	0.0	0.0
TOTAL ALL	1990	668.2	5.5	4.5	0.0	0.1	0.9	0.0	0.0
TOTAL ALL	2000	801.5	6.1	5.1	0.0	0.1	0.9	0.0	0.0
TOTAL ALL	2020	972.8	6.9	5.9	0.0	0.1	1.0	0.0	0.0
700 FULL SUP MDC MEMB									
TOTAL ALL	1980	715918.0	17426.3	4599.2	1672.1	7670.2	3485.3	0.0	0.0
TOTAL ALL	1990	796501.9	17659.9	4833.9	1688.3	7665.2	3472.3	0.0	0.0
TOTAL ALL	2000	844926.8	17315.0	4907.1	1679.5	7621.7	3406.7	0.0	0.0
TOTAL ALL	2020	1029359.9	18431.6	5586.9	1697.3	7609.1	3589.3	0.0	0.0
710 FULL SUP NON-MEMB									
TOTAL ALL	1980	17733.0	319.5	95.7	32.2	127.6	64.0	0.0	0.0
TOTAL ALL	1990	21735.4	339.1	112.7	32.4	127.5	66.4	0.0	0.0
TOTAL ALL	2000	24680.0	345.4	120.1	32.2	126.8	66.2	0.0	0.0
TOTAL ALL	2020	29402.0	366.3	136.9	32.6	126.6	70.3	0.0	0.0
720 TOT FULL SUP BY MDC									
TOTAL ALL	1980	733651.0	17745.8	4594.9	1704.3	7797.8	3549.3	0.0	0.0
TOTAL ALL	1990	818239.2	17999.0	4946.7	1720.7	7792.7	3538.7	0.0	0.0
TOTAL ALL	2000	869606.7	17660.3	5027.2	1711.7	7748.5	3472.9	0.0	0.0
TOTAL ALL	2020	1058761.0	18847.9	5723.8	1729.9	7734.6	3659.5	0.0	0.0
730 PART SUP MDC MEMB									
TOTAL ALL	1980	155813.0	3115.1	980.8	517.4	993.9	622.8	0.0	0.0
TOTAL ALL	1990	210020.2	3425.5	1251.8	522.6	993.1	658.1	0.0	0.0
TOTAL ALL	2000	239389.7	3537.7	1359.1	519.8	987.5	661.3	0.0	0.0
TOTAL ALL	2020	289326.3	3754.7	1540.9	525.4	985.7	702.7	0.0	0.0
740 PART SUP NON-MEMB									
TOTAL ALL	1980	116418.0	2241.8	732.7	407.9	653.0	448.3	0.0	0.0
TOTAL ALL	1990	146841.9	2392.6	864.9	411.9	652.6	463.2	0.0	0.0
TOTAL ALL	2000	163487.1	2438.9	918.7	409.8	648.9	461.5	0.0	0.0
TOTAL ALL	2020	198639.6	2595.4	1044.6	414.1	647.7	489.0	0.0	0.0
750 TOT PART SUP BY MDC									
TOTAL ALL	1980	272231.0	5356.9	1713.5	925.3	1646.9	1071.1	0.0	0.0
TOTAL ALL	1990	356862.1	5818.1	2116.7	934.5	1645.7	1121.2	0.0	0.0
TOTAL ALL	2000	403875.8	5966.5	2277.8	929.6	1636.3	1122.9	0.0	0.0
TOTAL ALL	2020	488166.0	6350.1	2585.5	939.5	1633.4	1191.7	0.0	0.0
760 TOT ALL 44 COMMUN									
TOTAL ALL	1980	1005882.0	23102.7	6408.4	2629.7	9444.7	4620.4	0.0	0.0
TOTAL ALL	1990	1175100.0	23817.0	7063.3	2655.3	9438.4	4660.0	0.0	0.0
TOTAL ALL	2000	1270882.0	23926.9	7305.0	2641.4	9384.8	4595.7	0.0	0.0
TOTAL ALL	2020	1546927.0	25198.0	8309.3	2659.4	9368.1	4851.2	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL NON-MFG

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
800 PLN AREA NON-MDC									
TOTAL ALL	1980	187416.0	2994.8	987.3	672.5	736.2	599.0	0.0	0.0
TOTAL ALL	1990	230849.1	3153.1	1131.3	679.2	735.9	606.7	0.0	0.0
TOTAL ALL	2000	257265.9	3212.9	1201.9	675.7	731.7	603.6	0.0	0.0
TOTAL ALL	2020	313438.9	3422.1	1369.5	682.8	730.4	639.4	0.0	0.0
810 PLN AREA COMP USE									
TOTAL ALL	1980	24159.0	311.5	117.7	29.0	102.4	62.2	0.0	0.0
TOTAL ALL	1990	34855.6	357.6	158.5	29.3	102.3	67.4	0.0	0.0
TOTAL ALL	2000	41364.0	380.3	180.1	29.1	101.8	69.3	0.0	0.0
TOTAL ALL	2020	50313.5	410.0	204.9	29.4	101.6	74.1	0.0	0.0
820 TOTAL NON-MDC									
TOTAL ALL	1980	211575.0	3306.3	1105.0	701.5	838.6	661.2	0.0	0.0
TOTAL ALL	1990	265704.7	3510.7	1289.8	708.5	838.2	674.1	0.0	0.0
TOTAL ALL	2000	298629.9	3593.2	1382.0	704.8	833.4	672.9	0.0	0.0
TOTAL ALL	2020	363752.4	3932.1	1574.4	712.3	831.9	713.5	0.0	0.0
900 TOTAL PLAN AREA									
TOTAL ALL	1980	1217457.0	26409.0	7513.5	3331.2	10283.3	5281.6	0.0	0.0
TOTAL ALL	1990	1440804.0	27327.6	8353.1	3363.8	10276.6	5334.1	0.0	0.0
TOTAL ALL	2000	1569512.0	27520.1	8697.0	3346.2	10218.2	5268.6	0.0	0.0
TOTAL ALL	2020	1910679.0	29030.2	9893.7	3391.7	10200.0	5564.8	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP-RL	OTHER	COOLING	PROCESS	MISC
51 BOSTON									
TOTAL ALL	1980	506814.0	17628.0	3414.7	1058.5	5487.4	5465.5	2025.4	176.0
TOTAL ALL	1990	516911.4	17865.1	3303.4	1069.0	5483.9	5266.7	2569.6	172.5
TOTAL ALL	2000	529794.1	18390.7	3245.4	1063.4	5452.8	5210.9	3242.4	175.8
TOTAL ALL	2020	633627.5	20227.5	3624.1	1074.7	5493.0	5449.9	4445.6	189.2
52 BROOKLINE									
TOTAL ALL	1980	17079.0	315.0	119.5	69.3	49.2	73.4	3.2	0.2
TOTAL ALL	1990	20068.6	331.2	133.3	70.0	49.2	75.2	3.3	0.2
TOTAL ALL	2000	21496.5	334.6	136.8	69.6	48.9	75.5	3.6	0.2
TOTAL ALL	2020	25998.8	357.6	154.5	70.4	48.8	79.3	4.5	0.1
61 CAMBRIDGE									
TOTAL ALL	1980	92542.0	3322.0	643.0	382.4	736.4	887.0	641.7	31.4
TOTAL ALL	1990	113005.9	3589.2	745.4	386.2	736.0	932.6	758.7	30.4
TOTAL ALL	2000	122730.4	3772.5	775.3	394.2	731.8	962.0	888.2	31.0
TOTAL ALL	2020	145171.2	4336.8	856.5	388.2	730.5	1091.1	1235.9	34.5
62 ARLINGTON									
TOTAL ALL	1980	7696.0	143.0	53.8	10.5	33.1	37.2	7.6	0.8
TOTAL ALL	1990	9018.6	152.5	59.9	10.6	33.0	39.1	9.0	0.9
TOTAL ALL	2000	9792.9	156.5	62.3	10.5	32.8	40.0	9.9	0.9
TOTAL ALL	2020	11809.7	165.2	70.2	10.7	32.7	41.1	9.7	0.8
63 BELMONT									
TOTAL ALL	1980	6577.0	274.0	45.9	14.1	95.0	107.3	10.7	0.6
TOTAL ALL	1990	8769.1	302.2	58.3	14.2	94.9	118.6	15.5	0.7
TOTAL ALL	2000	9910.2	316.6	63.1	14.2	94.4	123.9	20.2	0.8
TOTAL ALL	2020	11899.5	329.2	70.7	14.3	94.2	123.0	25.9	1.0
71 MALDEN									
TOTAL ALL	1980	18385.0	554.0	128.7	20.3	114.6	175.3	106.9	8.2
TOTAL ALL	1990	21481.6	581.6	142.8	20.5	114.7	175.0	121.0	7.7
TOTAL ALL	2000	22953.5	610.0	146.1	20.4	114.0	176.3	145.5	7.7
TOTAL ALL	2020	27424.9	700.3	163.1	20.6	113.8	189.0	205.1	8.5
72 EVERETT									
TOTAL ALL	1990	13045.0	1546.0	91.5	5.6	519.6	322.5	583.7	23.5
TOTAL ALL	1990	14291.5	1652.5	95.1	5.7	519.3	331.8	685.0	25.6
TOTAL ALL	2000	14920.4	1906.7	95.1	5.6	516.3	345.1	816.3	29.1
TOTAL ALL	2020	17283.0	2201.0	102.9	5.7	515.4	408.6	1133.1	35.3
73 MELROSE									
TOTAL ALL	1980	6222.0	89.0	36.0	8.0	15.0	23.2	6.3	0.7
TOTAL ALL	1990	7837.4	99.1	42.0	8.1	14.9	24.9	8.5	0.8
TOTAL ALL	2000	8734.6	104.7	44.7	8.1	14.9	25.7	10.5	0.8
TOTAL ALL	2020	10509.9	120.2	50.1	8.1	14.8	29.8	16.2	1.1

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INDOP-RL	OTHER	COOLING	PROCESS	MISC
74 WAKEFIELD									
TOTAL ALL	1980	10773.0	74.0	37.6	3.5	0.0	17.6	14.1	0.9
TOTAL ALL	1990	12511.1	86.5	42.9	3.5	0.0	19.6	19.4	1.1
TOTAL ALL	2000	13881.1	100.2	47.7	3.5	0.0	21.9	25.8	1.3
TOTAL ALL	2020	17177.3	132.0	56.0	3.6	0.0	29.2	41.3	1.9
81 MEDFORD									
TOTAL ALL	1980	15208.0	249.0	86.0	34.1	42.5	64.6	19.7	2.0
TOTAL ALL	1990	17621.1	260.6	93.5	34.4	42.5	65.6	22.9	1.9
TOTAL ALL	2000	19840.6	266.4	95.8	34.2	42.2	65.9	26.3	1.9
TOTAL ALL	2020	22577.9	286.9	107.0	34.6	42.1	69.4	31.9	1.9
91 NEWTON									
TOTAL ALL	1980	40450.0	814.0	220.8	118.1	110.9	176.4	182.4	5.4
TOTAL ALL	1990	55198.5	959.0	285.7	119.2	110.7	198.6	239.3	6.5
TOTAL ALL	2000	62829.7	1053.3	311.6	118.5	110.1	214.0	291.4	7.7
TOTAL ALL	2020	75639.7	1215.9	349.6	119.8	109.9	248.9	377.6	10.1
92 NEEDHAM									
TOTAL ALL	1980	15315.0	417.0	104.6	8.8	36.8	117.6	67.0	81.9
TOTAL ALL	1990	19023.6	487.6	123.4	8.9	36.8	134.5	93.8	90.3
TOTAL ALL	2000	20929.9	539.5	130.0	8.8	36.6	147.6	122.5	94.0
TOTAL ALL	2020	24387.7	608.4	141.3	8.9	36.5	165.8	167.8	87.9
93 WATERTOWN									
TOTAL ALL	1980	16653.0	271.0	50.9	5.3	72.0	76.4	64.5	1.4
TOTAL ALL	1990	18184.4	322.8	52.9	5.4	71.9	93.8	96.7	2.1
TOTAL ALL	2000	19346.1	376.2	54.2	5.3	71.5	112.5	129.9	2.7
TOTAL ALL	2020	22803.3	498.1	58.2	5.4	71.4	161.9	197.0	4.2
94 WELLESLEY									
TOTAL ALL	1980	15911.0	234.0	80.2	69.5	4.6	54.5	24.1	1.2
TOTAL ALL	1990	24324.0	280.8	113.3	70.2	4.6	60.3	31.0	1.4
TOTAL ALL	2000	29260.2	310.6	130.1	69.8	4.6	64.3	40.1	1.7
TOTAL ALL	2020	35544.9	365.3	148.0	70.6	4.6	75.1	64.5	2.6
1 ATHOL									
TOTAL ALL	1980	4840.0	182.0	28.1	3.4	0.0	44.9	100.0	5.3
TOTAL ALL	1990	5235.2	207.5	28.1	3.4	0.0	49.2	121.1	5.7
TOTAL ALL	2000	5753.5	251.1	29.8	3.4	0.0	57.0	154.2	6.7
TOTAL ALL	2020	7413.1	396.8	36.3	3.5	0.0	86.6	260.0	10.5
101 SOMERVILLE									
TOTAL ALL	1980	17693.0	635.0	103.7	50.7	149.5	195.2	120.2	15.3
TOTAL ALL	1990	17221.9	641.6	95.4	51.2	149.5	192.7	139.5	14.4
TOTAL ALL	2000	17158.5	651.5	91.2	51.0	148.6	190.4	156.2	14.1
TOTAL ALL	2020	19815.6	679.4	97.6	51.5	148.3	192.7	175.2	14.1

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP-RL	OTHER	COOLING	PROCESS	MISC
111 BROCKTON									
TOTAL ALL	1980	36512.0	534.0	186.4	43.4	78.4	160.0	57.0	8.6
TOTAL ALL	1990	39165.7	530.4	185.4	43.9	78.4	157.3	57.9	7.6
TOTAL ALL	2000	40873.6	530.1	184.6	43.6	77.9	155.0	61.9	7.1
TOTAL ALL	2020	47492.2	549.3	197.4	44.1	77.8	152.9	70.5	6.7
113 AVON									
TOTAL ALL	1980	3048.0	33.0	17.4	0.0	0.0	9.6	5.3	0.5
TOTAL ALL	1990	4402.7	41.8	23.3	0.0	0.0	11.0	7.0	0.6
TOTAL ALL	2000	5210.5	48.0	26.1	0.0	0.0	12.2	9.0	0.8
TOTAL ALL	2020	6121.3	57.6	28.4	0.0	0.0	14.8	13.3	1.1
115 EASTON									
TOTAL ALL	1980	3724.0	110.0	25.6	4.1	30.8	25.3	22.8	1.2
TOTAL ALL	1990	5314.1	125.8	35.0	4.1	30.8	27.4	27.3	1.2
TOTAL ALL	2000	6337.1	136.1	40.0	4.1	30.6	28.5	31.5	1.3
TOTAL ALL	2020	7617.7	151.2	45.1	4.2	30.6	31.2	38.9	1.4
123 HOLBROOK									
TOTAL ALL	1980	2507.0	69.0	17.4	1.4	5.5	19.2	23.6	1.7
TOTAL ALL	1990	2523.8	74.7	16.6	1.4	5.5	20.2	29.1	1.9
TOTAL ALL	2000	2592.7	81.2	16.3	1.4	5.5	21.2	34.8	2.1
TOTAL ALL	2020	3031.5	96.4	17.8	1.4	5.4	23.6	45.8	2.3
131 RANDOLPH									
TOTAL ALL	1980	7844.0	213.0	55.0	8.2	22.9	62.8	61.0	3.3
TOTAL ALL	1990	10947.4	270.0	72.8	8.3	22.9	77.2	84.5	4.2
TOTAL ALL	2000	12738.5	317.1	81.2	8.2	22.8	89.9	110.1	5.0
TOTAL ALL	2020	15110.6	403.9	89.9	8.3	22.7	112.9	163.3	6.9
133 STOUGHTON									
TOTAL ALL	1980	8200.0	74.0	42.5	5.1	0.0	14.4	11.4	0.6
TOTAL ALL	1990	11589.7	82.3	50.3	5.1	0.0	15.2	11.2	0.5
TOTAL ALL	2000	13703.0	88.9	54.8	5.1	0.0	15.9	12.7	0.4
TOTAL ALL	2020	16185.4	97.0	58.2	5.2	0.0	17.4	15.8	0.4
135 WHITMAN									
TOTAL ALL	1980	3299.0	65.0	12.2	1.4	0.0	16.3	33.2	1.6
TOTAL ALL	1990	3494.1	70.5	11.7	1.4	0.0	17.2	38.5	1.7
TOTAL ALL	2000	3641.4	81.7	11.4	1.4	0.0	19.3	47.6	1.9
TOTAL ALL	2020	4142.7	120.8	11.3	1.4	0.0	27.6	77.4	3.0
141 CHELSEA									
TOTAL ALL	1980	9997.0	492.0	70.0	19.2	65.5	143.4	182.9	11.3
TOTAL ALL	1990	10294.9	555.0	68.4	19.3	65.5	158.0	240.9	12.8
TOTAL ALL	2000	10507.5	627.4	67.0	19.2	65.1	167.1	295.2	13.8
TOTAL ALL	2020	11897.3	730.2	70.8	19.4	65.0	181.6	378.2	15.2

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
142 REVERE									
TOTAL ALL	1980	7799.0	151.0	54.5	11.4	31.9	37.1	14.4	1.3
TOTAL ALL	1990	8126.0	155.5	54.0	11.5	31.9	38.5	18.2	1.4
TOTAL ALL	2000	8384.8	157.9	53.4	11.5	31.7	38.8	21.1	1.4
TOTAL ALL	2020	10071.3	170.0	59.9	11.6	31.6	40.8	24.6	1.5
143 WINTHROP									
TOTAL ALL	1980	2655.0	130.0	18.6	9.2	52.0	29.1	19.2	1.9
TOTAL ALL	1990	3185.3	143.5	21.2	9.3	52.0	30.7	28.3	2.1
TOTAL ALL	2000	3495.1	152.1	22.2	9.2	51.7	31.4	35.4	2.2
TOTAL ALL	2020	4211.5	164.5	25.0	9.3	51.6	33.8	42.3	2.5
161 FITCHBURG									
TOTAL ALL	1980	17582.0	1066.0	123.0	59.4	130.9	385.9	341.4	25.4
TOTAL ALL	1990	18976.1	1192.9	126.1	60.0	130.8	417.8	430.7	27.4
TOTAL ALL	2000	19867.0	1319.3	126.5	59.7	130.1	440.9	532.5	29.6
TOTAL ALL	2020	23276.4	1646.1	138.5	60.3	129.9	498.8	781.4	37.2
165 CLINTON									
TOTAL ALL	1980	5430.0	200.0	37.9	3.6	12.4	49.4	91.8	4.7
TOTAL ALL	1990	6610.2	253.7	43.9	3.6	12.4	56.2	132.2	5.3
TOTAL ALL	2000	7029.5	300.1	44.7	3.6	12.3	62.4	171.2	5.9
TOTAL ALL	2020	7271.5	362.3	43.2	3.7	12.3	74.3	222.0	6.9
170 LANCASTER									
TOTAL ALL	1980	1535.0	15.0	5.9	3.7	0.0	3.3	2.0	0.0
TOTAL ALL	1990	2294.3	17.7	7.8	3.7	0.0	3.7	2.5	0.0
TOTAL ALL	2000	2765.7	19.6	8.8	3.7	0.0	4.0	3.1	0.0
TOTAL ALL	2020	3335.4	22.2	9.9	3.8	0.0	4.4	4.1	0.0
172 LEOMINSTER									
TOTAL ALL	1980	14201.0	1232.0	97.0	12.7	1.9	403.4	706.6	10.1
TOTAL ALL	1990	15421.9	1587.1	99.8	12.8	1.9	487.9	973.3	11.4
TOTAL ALL	2000	15775.9	1905.4	97.7	12.8	1.9	541.6	1239.2	12.3
TOTAL ALL	2020	16930.0	2401.9	97.7	12.9	1.9	617.8	1657.4	14.3
177 STERLING									
TOTAL ALL	1980	809.0	16.0	5.7	0.0	1.0	3.7	5.6	0.2
TOTAL ALL	1990	941.4	20.6	6.3	0.0	1.0	4.2	8.8	0.2
TOTAL ALL	2000	1006.7	23.7	6.5	0.0	1.0	4.6	11.4	0.3
TOTAL ALL	2020	1154.9	26.7	6.9	0.0	1.0	5.0	13.5	0.3
223 SOUTH HADLEY FD1									
TOTAL ALL	1980	4031.0	416.0	28.2	3.4	19.9	190.3	170.5	3.3
TOTAL ALL	1990	4917.6	491.9	32.8	3.4	19.9	215.6	216.3	4.0
TOTAL ALL	2000	5348.4	545.1	34.2	3.4	19.8	222.3	260.9	4.5
TOTAL ALL	2020	5981.5	633.5	35.7	3.5	19.7	234.6	334.4	5.5

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP-RL	OTHER	COOLING	PROCESS	MISC
234 NORTH ANDOVER									
TOTAL ALL	1980	13802.0	163.0	55.9	0.8	0.0	47.3	54.4	4.5
TOTAL ALL	1990	15874.9	187.2	48.1	0.8	0.0	54.7	78.2	5.3
TOTAL ALL	2000	17224.8	212.1	44.4	0.8	0.0	61.4	99.5	6.0
TOTAL ALL	2020	20369.9	275.6	47.5	0.8	0.0	84.6	134.6	8.2
242 BILLERICA									
TOTAL ALL	1980	12174.0	341.0	70.5	15.8	38.2	86.9	121.8	7.9
TOTAL ALL	1990	17900.4	462.5	98.3	16.0	38.1	111.4	188.4	10.3
TOTAL ALL	2000	22171.6	602.3	116.7	15.9	37.9	138.7	279.8	13.4
TOTAL ALL	2020	27776.3	999.3	136.6	16.1	37.8	200.7	487.5	20.7
243 CHELMSFORD									
TOTAL ALL	1980	7822.0	256.0	54.8	7.6	56.6	70.8	61.9	3.8
TOTAL ALL	1990	11657.9	324.8	77.5	7.7	56.5	87.4	90.5	5.2
TOTAL ALL	2000	14021.5	382.3	89.3	7.6	56.2	101.8	120.8	6.5
TOTAL ALL	2020	16821.5	482.7	100.1	7.7	56.1	130.0	179.6	9.3
248 TYNGSBOROUGH									
TOTAL ALL	1980	1300.0	26.0	9.1	0.0	2.2	5.0	9.5	0.4
TOTAL ALL	1990	1496.2	31.8	10.0	0.0	2.2	5.8	13.3	0.5
TOTAL ALL	2000	1659.7	35.8	10.6	0.0	2.2	6.4	16.0	0.6
TOTAL ALL	2020	1975.2	41.3	11.8	0.0	2.2	7.4	19.1	0.8
251 LYNN									
TOTAL ALL	1980	36622.0	1607.0	256.2	40.3	182.3	506.6	517.9	103.7
TOTAL ALL	1990	33338.1	1644.1	221.6	40.7	182.2	503.0	597.5	99.1
TOTAL ALL	2000	32921.3	1748.9	209.7	40.5	181.2	516.8	701.9	98.9
TOTAL ALL	2020	38415.9	2143.2	228.6	40.9	180.8	605.2	973.5	114.2
252 LYNNFIELD WD									
TOTAL ALL	1980	2460.0	39.0	17.2	0.0	13.4	8.1	0.2	0.0
TOTAL ALL	1990	3310.1	44.0	21.8	0.0	13.4	8.6	0.3	0.0
TOTAL ALL	2000	3752.3	46.0	23.7	0.0	13.3	8.7	0.3	0.0
TOTAL ALL	2020	4552.2	49.9	26.8	0.0	13.3	9.3	0.5	0.0
253 NAHANT									
TOTAL ALL	1980	612.0	17.0	3.5	4.0	5.2	3.6	0.5	0.1
TOTAL ALL	1990	652.6	17.8	4.3	4.0	5.2	3.7	0.5	0.1
TOTAL ALL	2000	738.6	18.1	4.6	4.0	5.2	3.7	0.5	0.1
TOTAL ALL	2020	900.9	19.0	5.3	4.1	5.2	3.9	0.5	0.1
254 SAUGUS									
TOTAL ALL	1980	8103.0	200.0	34.4	3.6	115.5	41.5	4.2	0.6
TOTAL ALL	1990	8797.2	201.3	35.1	3.6	115.4	41.7	4.9	0.6
TOTAL ALL	2000	9192.8	200.6	35.1	3.6	114.8	41.0	5.5	0.6
TOTAL ALL	2020	11065.0	208.3	39.2	3.7	114.6	43.3	7.0	0.6

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
255 SWAMPSCOTT									
TOTAL ALL	1980	2772.0	51.0	18.9	5.6	10.2	11.3	4.6	0.3
TOTAL ALL	1990	3406.4	54.0	22.0	5.7	10.2	11.3	4.6	0.3
TOTAL ALL	2000	3729.5	54.7	23.1	5.6	10.1	11.1	4.5	0.3
TOTAL ALL	2020	4512.8	57.7	26.1	5.7	10.1	11.4	4.2	0.2
261 MARLBOROUGH									
TOTAL ALL	1980	12750.0	454.0	89.4	21.0	80.0	140.6	110.4	12.9
TOTAL ALL	1990	18315.1	568.0	122.0	21.2	80.0	169.2	160.3	15.3
TOTAL ALL	2000	22237.2	669.4	141.9	21.1	79.5	192.9	216.5	17.5
TOTAL ALL	2020	26933.8	837.8	160.5	21.3	79.4	236.2	319.0	21.3
262 ASHLAND									
TOTAL ALL	1980	3681.0	39.0	1.6	0.1	0.0	9.2	27.4	0.8
TOTAL ALL	1990	4411.6	43.3	2.0	0.1	0.0	9.6	30.8	0.8
TOTAL ALL	2000	4911.6	50.1	2.2	0.1	0.0	10.5	36.4	0.9
TOTAL ALL	2020	5593.2	68.8	2.4	0.1	0.0	13.5	51.6	1.2
265 FRAMINGHAM									
TOTAL ALL	1980	38816.0	981.0	220.3	75.2	54.7	326.1	243.9	60.6
TOTAL ALL	1990	53739.9	1154.7	281.3	75.9	54.7	374.2	305.0	63.5
TOTAL ALL	2000	61633.2	1257.6	306.3	75.5	54.4	401.6	354.8	65.1
TOTAL ALL	2020	71296.1	1406.8	326.8	76.3	54.3	446.7	429.1	73.6
266 HUDSON									
TOTAL ALL	1980	5423.0	78.0	30.9	0.8	0.0	21.4	23.2	1.6
TOTAL ALL	1990	5867.8	90.2	31.6	0.8	0.0	24.0	31.9	1.9
TOTAL ALL	2000	6101.2	100.3	31.3	0.8	0.0	26.0	40.1	2.1
TOTAL ALL	2020	6620.5	114.6	30.8	0.8	0.0	29.4	51.2	2.4
268 NATICK									
TOTAL ALL	1980	16383.0	163.0	79.8	5.7	0.0	41.3	31.8	4.5
TOTAL ALL	1990	15876.8	171.9	79.4	5.8	0.0	43.8	38.4	4.4
TOTAL ALL	2000	17520.5	183.7	79.9	5.7	0.0	47.2	46.3	4.6
TOTAL ALL	2020	20555.2	211.4	86.2	5.8	0.0	55.4	58.8	5.2
269 NORTHBOROUGH									
TOTAL ALL	1980	3188.0	53.0	20.5	3.8	0.5	12.4	15.0	0.9
TOTAL ALL	1990	4503.2	65.3	27.1	3.8	0.5	13.9	18.9	1.1
TOTAL ALL	2000	5409.2	76.8	31.1	3.8	0.5	15.5	24.6	1.3
TOTAL ALL	2020	6714.5	104.5	36.1	3.9	0.5	20.9	41.3	1.9
272 SOUTHBOROUGH									
TOTAL ALL	1980	6735.0	51.0	9.7	0.0	0.0	12.0	27.7	1.5
TOTAL ALL	1990	9691.0	76.4	12.8	0.0	0.0	17.3	44.2	2.2
TOTAL ALL	2000	12796.6	110.7	15.8	0.0	0.0	24.0	67.9	3.0
TOTAL ALL	2020	17734.4	190.6	20.0	0.0	0.0	40.4	125.1	5.1

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
287 HOPKINTON									
TOTAL ALL	1980	1665.0	43.0	11.6	1.0	10.5	11.6	7.3	0.8
TOTAL ALL	1990	2469.7	50.7	16.4	1.0	10.5	12.9	9.0	0.8
TOTAL ALL	2000	2947.8	55.3	18.7	1.0	10.4	13.7	10.6	0.9
TOTAL ALL	2020	3506.2	60.8	20.8	1.0	10.4	14.8	12.9	0.9
342 AMHERST									
TOTAL ALL	1980	10395.0	641.0	63.7	424.9	21.5	130.1	0.5	0.1
TOTAL ALL	1990	13110.2	655.2	73.5	429.1	21.5	130.5	0.5	0.1
TOTAL ALL	2000	15510.6	663.7	82.8	426.9	21.4	131.9	0.6	0.1
TOTAL ALL	2020	19078.1	689.7	95.4	431.4	21.3	140.7	0.7	0.1
361 NORWOOD									
TOTAL ALL	1990	22807.0	590.0	149.2	17.1	26.4	190.5	200.0	6.3
TOTAL ALL	1990	33079.9	741.2	204.5	17.3	26.4	246.5	238.8	7.8
TOTAL ALL	2000	39404.4	895.5	233.2	17.2	26.2	299.2	310.0	9.6
TOTAL ALL	2020	46144.9	1127.0	254.5	17.4	26.2	375.6	440.1	13.2
362 CANTON									
TOTAL ALL	1980	13634.0	161.0	63.6	4.2	0.0	39.6	50.3	3.1
TOTAL ALL	1990	18777.6	211.6	80.3	4.2	0.0	48.9	74.4	3.7
TOTAL ALL	2000	21731.5	249.1	88.1	4.2	0.0	55.8	96.9	4.1
TOTAL ALL	2020	25168.7	293.1	92.7	4.3	0.0	64.4	127.0	4.7
363 DEDHAM									
TOTAL ALL	1980	12288.0	242.0	77.2	8.2	46.9	92.8	15.3	1.5
TOTAL ALL	1990	12652.4	240.2	75.3	8.3	46.9	90.5	17.7	1.6
TOTAL ALL	2000	12893.7	240.3	73.5	8.2	46.6	90.3	19.9	1.8
TOTAL ALL	2020	15137.4	257.6	80.3	8.3	46.5	95.7	24.7	2.0
370 WESTWOOD									
TOTAL ALL	1980	4592.0	131.0	32.0	0.1	33.7	36.9	24.9	3.1
TOTAL ALL	1990	5432.7	147.3	36.0	0.1	33.7	41.2	32.6	3.6
TOTAL ALL	2000	5840.3	159.3	37.2	0.1	33.5	44.4	40.3	3.9
TOTAL ALL	2020	6967.5	186.7	41.4	0.1	33.5	52.9	54.3	4.4
401 QUINCY									
TOTAL ALL	1980	34685.0	1145.0	236.2	44.3	161.3	449.3	189.2	64.8
TOTAL ALL	1990	33133.9	1135.4	214.0	44.7	161.2	452.1	202.4	61.0
TOTAL ALL	2000	33144.0	1171.4	205.1	44.5	160.3	470.0	231.3	60.2
TOTAL ALL	2020	39154.2	1391.4	226.2	45.0	160.0	559.2	321.0	70.0
402 BRAINTREE									
TOTAL ALL	1980	23622.0	236.0	110.0	21.0	8.6	64.4	29.5	2.4
TOTAL ALL	1990	30802.7	277.7	132.8	21.2	8.6	72.7	39.5	2.9
TOTAL ALL	2000	34444.4	302.6	141.0	21.1	8.5	79.3	49.2	3.4
TOTAL ALL	2020	40415.0	344.7	151.6	21.3	8.5	92.2	66.5	4.5

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP-RLD	INPOP-RL	OTHER	COOLING	PROCESS	MISC
406 MILTON									
TOTAL ALL	1980	4904.0	112.0	34.3	18.7	17.9	26.2	12.5	2.5
TOTAL ALL	1990	7389.6	130.9	49.1	18.8	17.8	28.4	14.1	2.6
TOTAL ALL	2000	8895.3	140.1	56.6	18.7	17.7	29.2	15.3	2.6
TOTAL ALL	2020	10707.7	147.8	63.6	18.9	17.7	30.0	15.1	2.4
413 DANVERS									
TOTAL ALL	1980	15423.0	336.0	91.4	28.5	23.4	115.7	67.5	9.6
TOTAL ALL	1990	19848.0	377.7	108.1	28.8	23.5	123.1	84.2	10.1
TOTAL ALL	2000	22613.5	414.0	117.2	28.6	23.4	130.9	103.2	10.8
TOTAL ALL	2020	27280.8	514.0	132.0	28.9	23.3	162.9	153.3	13.6
418 MARBLEHEAD									
TOTAL ALL	1980	4452.0	31.0	16.5	1.9	0.0	7.2	5.4	0.1
TOTAL ALL	1990	5228.3	35.3	17.8	1.9	0.0	7.7	7.9	0.1
TOTAL ALL	2000	5696.1	38.3	18.5	1.9	0.0	8.0	9.8	0.1
TOTAL ALL	2020	6763.5	43.5	19.9	1.9	0.0	8.7	12.9	0.2
419 MIDDLETON									
TOTAL ALL	1980	1376.0	50.0	9.6	0.3	3.1	12.8	22.4	1.7
TOTAL ALL	1990	1693.6	65.8	11.2	0.3	3.1	16.1	32.8	2.2
TOTAL ALL	2000	1987.8	85.4	12.6	0.3	3.1	19.8	46.7	2.8
TOTAL ALL	2020	2531.8	130.3	15.0	0.3	3.1	28.8	79.1	4.1
420 PEABODY									
TOTAL ALL	1980	16106.0	544.0	112.7	9.0	36.1	228.8	118.0	39.5
TOTAL ALL	1990	18803.8	562.1	125.0	9.1	36.0	209.6	140.3	42.1
TOTAL ALL	2000	20320.5	598.1	129.4	9.0	35.8	206.0	170.4	47.5
TOTAL ALL	2020	23610.7	672.9	140.4	9.1	35.7	208.0	220.3	59.3
435 CHICOPEE									
TOTAL ALL	1980	17707.0	1635.0	104.3	25.2	95.3	646.7	738.2	25.3
TOTAL ALL	1990	19119.5	1816.3	104.4	25.3	95.2	664.1	899.8	27.4
TOTAL ALL	2000	19929.8	2007.3	102.8	25.2	94.7	691.1	1063.5	29.9
TOTAL ALL	2020	21968.9	2351.4	103.1	25.5	94.5	744.8	1346.1	37.4
450 WARE									
TOTAL ALL	1980	2603.0	47.0	17.9	0.2	0.0	19.3	8.4	1.4
TOTAL ALL	1990	2830.1	49.0	18.4	0.2	0.0	19.4	9.6	1.3
TOTAL ALL	2000	2941.3	49.7	18.3	0.2	0.0	19.2	10.7	1.3
TOTAL ALL	2020	3234.5	51.6	18.8	0.2	0.0	18.9	12.4	1.2
455 WILBRAHAM									
TOTAL ALL	1980	2869.0	70.0	18.5	0.0	0.0	20.4	26.9	4.1
TOTAL ALL	1990	3123.2	80.1	19.0	0.0	0.0	22.6	33.9	4.6
TOTAL ALL	2000	3239.9	85.8	18.8	0.0	0.0	23.6	38.7	4.7
TOTAL ALL	2020	3435.6	84.1	18.3	0.0	0.0	22.6	38.9	4.3

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
471 WALTHAM									
TOTAL ALL	1980	57936.0	1959.0	380.4	105.7	187.8	855.6	374.9	54.1
TOTAL ALL	1990	70395.5	2258.1	435.6	106.6	187.7	974.6	490.1	63.6
TOTAL ALL	2000	76933.1	2515.1	454.9	106.1	186.6	1078.1	616.9	72.5
TOTAL ALL	2020	90911.4	3215.5	501.1	107.2	186.3	1379.1	943.1	98.8
472 ACTON									
TOTAL ALL	1980	5358.0	118.0	37.5	3.9	5.8	31.8	36.9	2.0
TOTAL ALL	1990	7863.4	145.6	52.3	3.9	5.8	36.4	44.9	2.3
TOTAL ALL	2000	9378.2	165.4	59.7	3.9	5.8	39.8	53.7	2.5
TOTAL ALL	2020	11115.1	195.6	66.1	4.0	5.8	45.7	71.3	2.9
473 BEDFORD									
TOTAL ALL	1980	14512.0	198.0	86.1	5.9	19.2	45.5	37.3	3.8
TOTAL ALL	1990	17526.7	233.0	95.4	6.0	19.2	55.4	52.5	4.6
TOTAL ALL	2000	19246.8	265.2	99.2	5.9	19.1	64.6	70.9	5.4
TOTAL ALL	2020	22321.3	339.0	106.4	6.0	19.0	86.6	113.3	7.7
475 LEXINGTON									
TOTAL ALL	1980	22311.0	629.0	119.0	32.0	258.9	163.6	52.2	3.2
TOTAL ALL	1990	29852.7	721.0	148.1	32.2	258.7	196.5	80.8	4.7
TOTAL ALL	2000	35016.2	804.3	167.4	32.0	257.3	226.6	114.6	6.3
TOTAL ALL	2020	41794.0	948.8	185.7	32.4	256.8	281.4	183.0	9.5
479 WESTON									
TOTAL ALL	1980	3131.0	57.0	20.0	20.1	1.4	12.1	3.1	0.1
TOTAL ALL	1990	3974.7	60.9	24.0	20.3	1.4	12.8	2.3	0.1
TOTAL ALL	2000	4431.4	62.7	25.7	20.2	1.4	13.0	2.3	0.1
TOTAL ALL	2020	5371.1	67.5	29.1	20.4	1.4	13.9	2.6	0.1
491 WOBURN									
TOTAL ALL	1980	22907.0	770.0	160.2	12.1	156.8	213.6	210.6	16.5
TOTAL ALL	1990	33598.5	948.9	223.2	12.2	156.6	248.8	288.0	20.2
TOTAL ALL	2000	40075.7	1091.3	255.0	12.2	155.7	275.4	369.7	23.4
TOTAL ALL	2020	47885.9	1336.6	284.6	12.3	155.4	328.3	525.0	30.9
493 NORTH READING									
TOTAL ALL	1980	2598.0	24.0	14.4	3.6	0.0	5.0	1.0	0.1
TOTAL ALL	1990	3932.1	30.7	20.2	3.6	0.0	5.5	1.2	0.1
TOTAL ALL	2000	4733.4	34.2	23.2	3.6	0.0	5.7	1.6	0.1
TOTAL ALL	2020	5758.0	39.1	26.4	3.7	0.0	6.4	2.6	0.1
495 STONEHAM									
TOTAL ALL	1980	6713.0	479.0	47.0	5.0	35.4	361.9	26.0	3.4
TOTAL ALL	1990	9096.4	544.8	60.4	5.0	35.4	402.3	37.5	4.1
TOTAL ALL	2000	10371.6	583.3	65.9	5.0	35.2	422.2	50.2	4.8
TOTAL ALL	2020	12207.1	602.2	72.5	5.1	35.1	409.3	74.0	6.2

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	INPOP RL	OTHER	COOLING	PROCESS	MISC
495 WILMINGTON									
TOTAL ALL	1980	15093.0	482.0	94.6	0.0	98.2	123.9	156.4	8.7
TOTAL ALL	1990	18725.1	578.5	114.1	0.0	98.1	140.4	215.5	10.4
TOTAL ALL	2000	21772.4	678.2	128.3	0.0	97.6	157.8	282.2	12.2
TOTAL ALL	2020	26332.4	890.1	144.8	0.0	97.4	211.2	419.1	17.5
497 WINCHESTER									
TOTAL ALL	1990	5458.0	121.0	38.2	7.8	21.8	35.8	16.3	1.1
TOTAL ALL	1990	7756.2	142.6	51.6	7.9	21.8	39.1	21.1	1.3
TOTAL ALL	2000	9126.3	157.2	58.2	7.8	21.6	41.7	26.5	1.4
TOTAL ALL	2020	10950.1	183.9	65.2	7.9	21.6	48.6	38.6	1.9
501 WORCESTER									
TOTAL ALL	1980	101233.0	4334.0	681.0	295.2	515.9	1497.0	1273.8	71.1
TOTAL ALL	1990	107500.1	4473.9	683.6	298.1	515.5	1487.0	1418.4	71.3
TOTAL ALL	2000	111280.7	4597.8	677.3	296.6	512.6	1480.9	1557.0	73.3
TOTAL ALL	2020	129441.4	4988.6	734.8	299.7	511.7	1550.1	1907.4	84.9
507 HOLDEN									
TOTAL ALL	1980	4054.0	48.0	21.2	2.7	0.0	11.5	11.9	0.7
TOTAL ALL	1990	5626.8	59.0	26.6	2.7	0.0	12.8	16.1	0.8
TOTAL ALL	2000	6656.5	68.2	29.9	2.7	0.0	14.0	20.6	1.0
TOTAL ALL	2020	8039.0	84.1	33.6	2.7	0.0	17.2	29.3	1.3
514 PAXTON									
TOTAL ALL	1980	580.0	1.0	0.4	0.4	0.0	0.1	0.0	0.0
TOTAL ALL	1990	864.4	1.0	0.4	0.4	0.0	0.1	0.0	0.0
TOTAL ALL	2000	1043.0	1.0	0.5	0.4	0.0	0.1	0.0	0.0
TOTAL ALL	2020	1263.9	1.0	0.5	0.4	0.0	0.1	0.0	0.0
515 RUTLAND									
TOTAL ALL	1980	537.0	22.0	4.1	-0.4	12.7	4.8	0.6	0.2
TOTAL ALL	1990	576.0	22.2	4.1	-0.4	12.7	4.9	0.7	0.2
TOTAL ALL	2000	603.6	22.1	4.1	-0.4	12.6	4.8	0.7	0.2
TOTAL ALL	2020	707.1	22.9	4.5	-0.4	12.6	5.1	0.9	0.2
519 WESTBOROUGH									
TOTAL ALL	1980	11109.0	198.0	35.1	0.0	6.1	60.1	90.1	6.4
TOTAL ALL	1990	15026.0	223.5	45.3	0.0	6.1	63.5	102.0	6.7
TOTAL ALL	2000	17088.1	233.5	49.3	0.0	6.1	63.9	107.6	6.6
TOTAL ALL	2020	19504.3	233.1	51.8	0.0	6.1	63.3	105.5	6.4
521 SPECIAL USERS									
TOTAL ALL	1980	4520.0	379.5	31.6	50.3	221.6	75.9	0.0	0.0
TOTAL ALL	1990	4580.6	376.7	30.4	50.8	221.5	74.1	0.0	0.0
TOTAL ALL	2000	5238.1	378.3	33.3	50.5	220.2	74.2	0.0	0.0
TOTAL ALL	2020	6615.2	389.3	39.3	51.1	219.8	79.1	0.0	0.0

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP-RLD	INPOP-RL	OTHER	COOLING	PROCESS	MISC
522 LYNNFIELD CWD									
TOTAL ALL	1980	438.0	4.0	3.1	0.0	0.1	0.8	0.0	0.0
TOTAL ALL	1990	668.2	5.5	4.5	0.0	0.1	0.9	0.0	0.0
TOTAL ALL	2000	801.5	6.1	5.1	0.0	0.1	0.9	0.0	0.0
TOTAL ALL	2020	972.8	6.9	5.8	0.0	0.1	1.0	0.0	0.0
700 FULL SUP MDC MEMB									
TOTAL ALL	1980	853928.0	28542.9	5551.0	1672.1	7670.2	9045.3	4216.6	384.0
TOTAL ALL	1990	932540.2	29926.2	5718.5	1688.3	7665.2	9182.5	5277.2	394.4
TOTAL ALL	2000	985045.7	31472.0	5777.2	1679.5	7621.7	9415.5	6562.8	415.2
TOTAL ALL	2020	1174281.0	35647.1	6425.0	1697.3	7608.1	10360.6	9069.3	486.7
710 FULL SUP NON-MEMB									
TOTAL ALL	1980	36772.0	2372.0	198.6	32.2	127.6	918.8	1055.1	38.9
TOTAL ALL	1990	43461.4	2718.3	212.9	32.4	127.5	975.8	1326.3	43.3
TOTAL ALL	2000	48343.1	3048.9	216.3	32.2	126.8	1023.4	1602.1	48.1
TOTAL ALL	2020	56391.9	3621.9	220.4	32.6	126.6	1116.7	2066.5	59.2
720 TOT FULL SUP BY MDC									
TOTAL ALL	1980	890700.0	30914.9	5749.6	1704.3	7797.8	9964.1	5271.7	422.9
TOTAL ALL	1990	976001.6	32644.5	5931.4	1720.7	7792.7	10158.3	6603.5	437.7
TOTAL ALL	2000	1033388.7	34520.9	5993.5	1711.7	7748.5	10438.9	8164.9	463.3
TOTAL ALL	2020	1230672.0	39268.9	6645.4	1729.9	7734.6	11477.3	11135.7	545.9
730 PART SUP MDC MEMB									
TOTAL ALL	1980	195777.0	5700.0	1260.2	517.4	993.9	1606.6	1145.2	175.7
TOTAL ALL	1990	251775.1	6370.0	1528.9	522.6	993.1	1706.1	1428.9	190.5
TOTAL ALL	2000	282486.6	6891.2	1639.5	519.8	987.5	1787.6	1742.3	204.5
TOTAL ALL	2020	335267.3	7996.4	1813.9	525.4	985.7	2024.5	2423.1	223.9
740 PART SUP NON-MEMB									
TOTAL ALL	1980	170188.0	7054.0	1108.3	407.9	653.0	2379.5	2349.7	155.6
TOTAL ALL	1990	199480.2	7849.0	1213.8	411.9	652.6	2532.2	2876.0	162.5
TOTAL ALL	2000	216336.2	8507.0	1254.3	409.8	649.9	2632.5	3392.1	169.4
TOTAL ALL	2020	251315.9	9739.6	1355.9	414.1	647.7	2871.7	4254.2	196.0
750 TOT PART SUP BY MDC									
TOTAL ALL	1980	365965.0	12754.0	2368.4	925.3	1646.9	3986.1	3495.0	331.4
TOTAL ALL	1990	451255.2	14219.1	2742.7	934.5	1645.7	4238.3	4304.9	353.0
TOTAL ALL	2000	498822.9	15380.2	2893.8	929.6	1636.3	4420.1	5134.4	373.9
TOTAL ALL	2020	586583.2	17736.0	3169.8	939.5	1633.4	4896.2	6677.3	419.8
760 TOT ALL 44 COMMUN									
TOTAL ALL	1980	1256665.0	43668.9	8118.0	2629.7	9444.7	13950.2	8766.7	754.3
TOTAL ALL	1990	1427256.0	46863.6	8674.1	2655.3	9438.4	14396.6	10909.4	790.7
TOTAL ALL	2000	1532210.0	49909.1	8887.3	2641.4	9384.8	14858.9	13299.4	837.2
TOTAL ALL	2020	1817255.0	57004.9	9815.1	2669.4	9368.1	16373.4	17813.1	965.7

SUMMARY NONDOMESTIC EMPLOYMENT & WATER USE
TOTAL ALL ACTIVI

		EMPLOY	TOTAL	SANITARY USES EMP RLD	SANITARY USES INPOP RL	OTHER	COOLING	PROCESS	MISC
800 PLN AREA NON-MDC									
TOTAL ALL	1980	270904.0	6933.9	1552.0	672.5	736.2	2026.9	1650.0	194.8
TOTAL ALL	1990	317266.9	7463.8	1687.8	679.2	735.9	2137.7	2025.9	197.5
TOTAL ALL	2000	348109.9	8392.1	1763.9	675.7	731.7	2252.1	2462.9	205.9
TOTAL ALL	2020	409789.7	9659.9	1929.0	692.8	730.4	2611.9	3459.0	246.8
810 PLN AREA COMP USE									
TOTAL ALL	1980	42445.0	1037.0	235.8	29.0	102.4	274.2	371.2	23.6
TOTAL ALL	1990	54688.3	1288.6	278.6	29.3	102.3	328.8	520.6	29.0
TOTAL ALL	2000	63428.8	1564.8	307.1	29.1	101.8	386.4	705.1	35.3
TOTAL ALL	2020	77387.4	2192.3	350.0	29.4	101.6	533.0	1126.5	51.7
820 TOTAL NON-MDC									
TOTAL ALL	1980	313349.0	7970.9	1787.8	701.5	838.6	2301.1	2021.2	218.1
TOTAL ALL	1990	371955.2	8752.5	1966.4	708.5	838.2	2466.4	2546.5	226.4
TOTAL ALL	2000	411538.6	9656.8	2070.9	704.8	833.4	2638.5	3160.0	241.2
TOTAL ALL	2020	487176.2	11852.1	2279.1	712.3	831.9	3144.8	4585.6	298.5
900 TOTAL PLAN AREA									
TOTAL ALL	1980	1570014.0	51539.8	9905.8	3331.2	10283.3	16251.3	10787.8	972.4
TOTAL ALL	1990	1799211.0	55616.1	10540.5	3363.8	10276.6	16863.1	13454.9	1017.1
TOTAL ALL	2000	1943748.0	59555.9	10958.3	3346.2	10218.2	17497.5	16467.3	1078.4
TOTAL ALL	2020	2304431.0	68357.0	12094.2	3381.7	10200.0	19518.3	22398.6	1264.2

COMPONENTS OF UNACCOUNTED-FOR WATER IN 1980 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS)

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
62	ARLINGTON	69.1	15.9	17.4	333.6	436.0	0.750
63	BELMONT	40.4	30.4	11.1	69.1	151.0	0.863
51	BOSTON	774.2	1958.7	1485.0	14603.2	18821.0	0.620
52	BROOKLINE	107.2	35.0	26.2	327.6	496.0	0.811
141	CHELSEA	39.0	54.7	12.4	-19.0	87.0	0.930
72	EVERETT	47.6	171.8	31.0	498.6	749.0	0.758
476	LEXINGTON	53.5	97.9	21.2	167.4	340.0	0.840
252	LYNNFIELD WD	4.7	4.3	1.6	31.4	42.0	0.737
71	MALDEN	64.7	61.6	19.9	197.8	344.0	0.827
418	MARBLEHEAD	33.8	3.4	7.9	144.8	190.0	0.760
81	MEDFORD	76.6	27.7	32.9	1607.8	1745.0	0.469
73	MELROSE	41.5	9.9	10.3	179.3	241.0	0.766
406	MILTON	36.8	13.9	10.9	283.4	345.0	0.684
253	NAHANT	6.5	1.9	1.4	9.2	19.0	0.869
91	NEWTON	130.3	90.4	40.7	795.6	1057.0	0.740
361	NORWOOD	36.5	65.6	15.9	268.1	386.0	0.757
401	QUINCY	122.7	127.2	42.9	784.2	1077.0	0.749
142	REVERE	50.8	16.8	17.0	606.4	691.0	0.593
254	SAUGUS	35.6	22.2	13.8	512.3	584.0	0.578
101	SOMERVILLE	143.2	70.6	35.9	287.4	537.0	0.850
495	STONEHAM	25.2	53.2	13.1	314.5	406.0	0.690
255	SWAMPSCOTT	26.0	5.7	7.2	192.2	231.0	0.679
471	WALTHAM	84.9	217.7	42.1	474.4	819.0	0.805
93	WATERTOWN	49.2	30.1	17.3	530.4	627.0	0.637
143	WINTHROP	30.7	14.4	7.6	61.2	114.0	0.850
599	XXXXXXXSUBTOTAL	2130.7	3200.9	1942.6	23260.8	30535.0	.

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
435	CHICOPEE	84.4	181.7	38.0	438.0	742.0	0.805
166	CLINTON	22.9	22.2	7.0	63.9	116.0	0.835
223	SO. HADLEY FD1	21.0	46.2	8.0	-47.2	28.0	0.965
272	SOUTHBOROUGH	7.7	5.7	1.9	-5.2	10.0	0.947
455	WILBRAHAM	12.0	7.8	3.1	13.1	36.0	0.883
599	XXXXXXXSUBTOTAL	147.9	263.6	58.0	462.5	932.0	.

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
61	CAMBRIDGE	112.7	369.1	62.9	524.3	1069.0	0.830
362	CANTON	34.7	21.1	11.1	267.1	334.0	0.699
92	NEEDHAM	45.6	46.3	13.3	35.8	141.0	0.894
420	PEABODY	69.5	60.4	31.0	1220.1	1381.0	0.554
74	WAKEFIELD	39.9	8.2	8.9	87.0	144.0	0.838
94	WELLESLEY	39.1	26.0	11.2	146.7	223.0	0.800
479	WESTON	20.9	6.3	4.2	-24.4	7.0	0.983
497	WINCHESTER	36.8	13.4	10.9	289.9	351.0	0.783
491	WOBURN	63.4	85.6	24.5	440.6	614.0	0.750

COMPONENTS OF UNACCOUNTED-FOR WATER IN 1980 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS)

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
599	XXXXXXXSUBTOTAL	462.5	636.6	177.9	2987.0	4264.0	.

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
265	FRAMINGHAM	102.3	109.0	31.5	204.1	447.0	0.858
172	LEOMINSTER	41.5	136.9	22.6	126.0	327.0	0.855
261	MARLBOROUGH	49.3	50.4	15.1	108.2	223.0	0.852
269	NORTHBOROUGH	10.3	5.9	2.5	5.3	24.0	0.904
501	WORCESTER	160.8	502.7	93.9	1403.6	2161.0	0.770
599	XXXXXXXSUBTOTAL	364.2	804.9	165.6	1847.3	3182.0	.

GROUP=OTHER MDC WATER USES

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
551	MILTON-CANTON	0.0	0.0	0.0	0.0	0.0	1.000
521	SPECIAL MDC	0.0	0.0	0.0	0.0	0.0	1.000
523	SYSTEM USES	0.0	0.0	0.0	11009.0	11009.0	0.000
549	WACH-QPXT(WORC)	0.0	0.0	0.0	0.0	0.0	1.000
550	WACHUSETT-OTHER	0.0	0.0	0.0	0.0	0.0	1.000
599	XXXXXXXSUBTOTAL	0.0	0.0	0.0	11009.0	11009.0	.

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
599	XXXXXXXXXXTOTAL	3105.4	4905.9	2344.1	39566.6	49922.0	.

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

COMPONENTS OF UNACCOUNTED-FOR WATER IN 1990 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS)

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
62	ARLINGTON	48.2	16.9	16.5	311.2	392.9	54.9	338.0	0.759
63	BELMONT	29.7	33.6	11.3	67.9	142.5	37.5	105.0	0.872
51	BOSTON	543.1	1448.5	1484.2	14205.2	17681.0	2417.1	15263.8	0.634
52	BROOKLINE	100.9	36.8	25.1	312.2	474.9	84.2	390.7	0.811
141	CHELSEA	34.5	62.8	12.3	-22.8	86.8	41.4	45.4	0.930
72	EVERETT	43.9	184.7	31.7	505.7	766.0	106.5	659.5	0.758
476	LEXINGTON	49.4	108.1	21.5	165.2	344.2	72.2	272.0	0.840
252	LYNNFIELD WD	5.0	4.9	1.7	33.8	45.4	5.8	39.6	0.737
71	MALDEN	60.1	64.6	19.3	189.4	333.4	64.8	268.6	0.827
418	MARBLEHEAD	34.3	3.9	8.1	147.5	193.7	27.1	166.6	0.760
81	MEDFORD	73.1	29.0	31.9	1557.5	1691.4	107.0	1584.4	0.469
73	MELROSE	40.9	11.0	10.3	178.8	241.0	34.6	206.4	0.766
406	MILTON	36.6	16.0	11.1	287.9	351.6	37.4	314.2	0.684
253	NAHANT	6.5	2.0	1.5	9.3	19.2	4.9	14.3	0.869
91	NEWTON	121.7	106.6	40.7	788.4	1057.4	136.7	920.7	0.740
361	NORWOOD	28.6	82.4	18.3	301.6	430.8	61.1	369.8	0.763
401	QUINCY	123.5	126.2	42.9	785.7	1078.2	144.3	933.9	0.749
142	REVERE	47.9	17.3	16.2	579.1	660.6	54.6	606.0	0.593
254	SAUGUS	35.7	22.4	13.9	514.0	585.9	46.7	539.2	0.578
101	SOMERVILLE	138.8	71.3	35.1	279.9	525.0	117.8	407.2	0.850
495	STONEHAM	25.5	60.5	14.1	337.4	437.6	47.4	390.1	0.690
255	SWAMPSCOTT	26.3	6.0	7.3	195.6	235.3	24.6	210.7	0.679
471	WALTHAM	61.0	250.9	45.1	493.9	850.9	150.7	700.1	0.810
93	WATERTOWN	45.3	35.9	17.0	520.1	618.3	57.3	561.0	0.637
143	WINTHROP	29.6	15.9	7.6	59.9	113.0	25.4	87.6	0.850
599	XXXXXXXSUBTOTAL	1789.9	2818.0	1944.7	22804.3	29356.8	3961.9	25394.9	.

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
435	CHICOPEE	84.1	201.8	40.2	458.9	785.1	135.1	650.0	0.805
166	CLINTON	22.4	28.2	7.6	66.8	124.9	25.4	99.5	0.835
223	SO. HADLEY FD1	21.5	54.7	8.8	-53.9	31.0	29.7	1.3	0.965
272	SOUTHBOROUGH	8.7	8.5	2.4	-7.1	12.4	7.9	4.5	0.947
455	WILBRAHAM	12.6	8.9	3.3	13.7	38.5	11.1	27.4	0.883
599	XXXXXXXSUBTOTAL	149.2	302.0	62.3	478.4	992.0	209.2	782.8	.

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
61	CAMBRIDGE	97.9	398.8	63.1	512.8	1072.6	212.1	860.5	0.830
362	CANTON	27.3	26.8	12.3	290.1	356.5	40.8	315.7	0.706
92	NEEDHAM	44.6	54.2	13.9	34.7	147.3	46.6	100.7	0.894
420	PEABODY	67.6	62.5	30.7	1209.2	1370.0	103.2	1266.8	0.554
74	WAKEFIELD	31.6	9.6	9.5	91.4	142.2	31.7	110.5	0.849
94	WELLESLEY	37.2	31.2	11.4	147.1	226.8	38.1	188.7	0.800
479	WESTON	21.0	6.8	4.2	-24.9	7.1	14.2	-7.1	0.983
497	WINCHESTER	35.1	15.8	10.8	141.5	203.3	31.5	171.8	0.783
491	WOBURN	61.5	105.4	26.5	470.0	663.4	89.0	574.4	0.750

COMPONENTS OF UNACCOUNTED-FOR WATER IN 1990 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS)

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
599	XXXXXXXSUBTOTAL	423.8	711.1	182.4	2871.9	4189.2	607.2	3582.0	.

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
265	FRAMINGHAM	100.5	128.3	33.2	208.7	470.7	111.6	359.1	0.858
172	LEOMINSTER	52.8	176.3	29.0	161.2	419.4	97.3	322.0	0.855
261	MARLBOROUGH	54.5	63.1	17.4	122.9	257.9	58.6	199.3	0.852
269	NORTHBOROUGH	11.6	7.3	2.9	6.0	27.7	9.7	18.0	0.904
501	WORCESTER	116.9	379.7	96.9	1407.1	2000.6	318.0	1682.7	0.789
599	XXXXXXXSUBTOTAL	336.3	754.7	179.4	1905.8	3176.3	595.2	2581.1	.

GROUP=OTHER MDC WATER USES

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
551	MILTON-CANTON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
521	SPECIAL MDC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
523	SYSTEM USES	0.0	0.0	0.0	7665.0	7665.0	0.0	7665.0	0.000
549	WACH-QPXT(WORC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
550	WACHUSETT-OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
599	XXXXXXXSUBTOTAL	0.0	0.0	0.0	7665.0	7665.0	0.0	7665.0	.

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
599	XXXXXXXXXXTOTAL	2699.3	4585.8	2368.8	35725.4	45379.3	5373.5	40005.8	.

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
62	ARLINGTON	47.7	17.4	16.5	309.2	390.7	345.0
63	BELMONT	30.0	35.2	11.5	68.7	145.3	114.1
51	BOSTON	522.3	1491.1	1487.7	14222.0	17723.3	15306.1
52	BROOKLINE	97.7	37.2	24.4	303.9	463.2	393.0
141	CHELSEA	33.5	69.7	12.8	-25.8	90.3	55.8
72	EVERETT	42.9	200.7	33.4	529.7	806.7	718.0
476	LEXINGTON	48.9	117.3	22.4	170.0	358.6	298.4
252	LYNNFIELD WD	5.0	5.1	1.8	34.4	46.2	41.4
71	MALDEN	60.5	67.8	19.7	192.8	340.8	286.8
418	MARBLEHEAD	34.2	4.3	8.1	147.7	194.2	171.6
81	MEDFORD	73.4	29.6	32.1	1568.2	1703.3	1614.1
73	MELROSE	40.0	11.6	10.2	176.1	237.9	209.1
406	MILTON	35.6	17.0	11.0	284.7	348.3	317.2
253	NAHANT	6.4	2.0	1.4	9.1	19.0	14.9
91	NEWTON	119.7	117.0	41.5	800.2	1078.5	964.5
361	NORWOOD	29.8	99.5	20.7	337.3	487.3	436.4
401	QUINCY	121.0	130.2	42.9	782.3	1076.3	956.1
142	REVERE	47.4	17.5	16.1	575.4	656.5	611.0
254	SAUGUS	36.6	22.3	14.1	523.4	596.3	557.5
101	SOMERVILLE	134.4	72.4	34.3	272.7	513.9	415.7
495	STONEHAM	25.0	64.8	14.6	347.0	451.4	411.8
255	SWAMPSCOTT	26.1	6.1	7.3	194.1	233.6	213.1
471	WALTHAM	61.0	279.5	48.3	522.3	911.1	785.5
93	WATERTOWN	46.5	41.8	18.2	554.4	661.0	613.3
143	WINTHROP	29.0	16.9	7.5	59.3	112.7	91.6
599	XXXXXXXSUBTOTAL	1754.6	2974.0	1958.6	22959.1	29646.3	25941.8

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
435	CHICOPEE	85.9	223.0	42.9	486.7	838.5	725.9
166	CLINTON	21.8	33.3	8.0	68.9	132.0	110.8
223	SO. HADLEY FD1	22.3	60.6	9.5	-58.9	33.5	8.7
272	SOUTHBOROUGH	9.1	12.3	2.8	-9.5	14.7	8.1
455	WILBRAHAM	12.9	9.5	3.4	14.1	40.0	30.7
599	XXXXXXXSUBTOTAL	151.9	338.8	66.7	501.3	1058.6	884.3

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
61	CAMBRIDGE	95.9	419.2	64.9	523.2	1103.2	926.5
362	CANTON	28.4	30.9	13.2	309.8	382.3	348.3
92	NEEDHAM	44.4	59.9	14.4	34.4	153.1	114.3
420	PEABODY	68.0	66.5	31.5	1238.4	1404.3	1318.3
74	WAKEFIELD	31.5	11.1	9.7	92.0	144.4	118.0
94	WELLESLEY	36.4	34.5	11.6	148.4	230.9	199.1
479	WESTON	21.3	7.0	4.3	-25.4	7.2	-4.6
497	WINCHESTER	35.1	17.5	11.0	143.5	207.0	180.8
491	WOBURN	63.7	121.3	28.9	509.5	723.3	649.1

COMPONENTS OF UNACCOUNTED-FOR WATER IN 2000 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS) 24

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
599	XXXXXXXSUBTOTAL	424.8	767.8	189.4	2973.7	4355.8	3849.8

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
265	FRAMINGHAM	99.8	139.7	34.2	211.8	485.5	392.6
172	LEOMINSTER	58.2	211.7	33.7	184.9	488.5	407.4
261	MARLBOROUGH	57.0	74.4	19.1	132.3	282.8	234.0
269	NORTHBOROUGH	12.3	8.5	3.1	6.2	30.2	22.1
501	WORCESTER	113.0	389.8	97.5	1411.3	2011.5	1746.6
599	XXXXXXXSUBTOTAL	340.3	824.1	187.7	1946.5	3298.6	2802.6

GROUP=OTHER MDC WATER USES

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
551	MILTON-CANTON	0.0	0.0	0.0	0.0	0.0	0.0
521	SPECIAL MDC	0.0	0.0	0.0	0.0	0.0	0.0
523	SYSTEM USES	0.0	0.0	0.0	7686.0	7686.0	7686.0
549	WACH-QPXT(WORC)	0.0	0.0	0.0	0.0	0.0	0.0
550	WACHUSETT-OTHER	0.0	0.0	0.0	0.0	0.0	0.0
599	XXXXXXXSUBTOTAL	0.0	0.0	0.0	7686.0	7686.0	7686.0

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
599	XXXXXXXXXXTOTAL	2671.5	4904.7	2402.4	36066.6	46045.2	41164.5

GROUP=FULLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
62	ARLINGTON	49.8	18.4	17.2	323.2	408.5	381.1
63	BELMONT	31.2	36.6	12.0	71.5	151.2	132.5
51	BOSTON	513.3	1640.1	1569.4	14973.4	18696.1	16279.0
52	BROOKLINE	98.6	39.7	24.9	308.7	471.9	429.8
141	CHELSEA	35.4	81.1	14.3	-30.3	100.5	79.8
72	EVERETT	44.0	244.6	38.8	611.1	938.5	885.3
476	LEXINGTON	49.5	133.4	24.2	180.9	388.1	352.0
252	LYNNFIELD WD	5.3	5.5	1.9	36.7	49.4	46.5
71	MALDEN	65.6	77.8	21.8	212.3	377.5	345.2
418	MARBLEHEAD	35.4	4.8	8.4	153.9	202.6	189.1
81	MEDFORD	80.1	31.9	34.9	1707.3	1854.2	1800.7
73	MELROSE	42.0	13.4	10.8	186.9	253.1	235.8
406	MILTON	36.4	17.8	11.3	292.7	358.3	339.6
253	NAHANT	6.5	2.1	1.5	9.3	19.4	17.0
91	NEWTON	122.3	135.1	44.3	849.2	1150.9	1082.5
361	NORWOOD	32.7	125.2	24.6	396.7	579.2	548.7
401	QUINCY	123.8	153.5	46.3	838.9	1162.5	1090.4
142	REVERE	49.8	18.9	17.0	606.3	692.0	664.7
254	SAUGUS	47.1	23.1	17.4	644.6	732.3	708.9
101	SOMERVILLE	138.1	75.5	35.4	280.7	529.7	470.8
495	STONEHAM	25.6	66.9	15.0	356.5	463.9	440.2
255	SWAMPSCOTT	26.9	6.4	7.5	201.0	241.9	229.5
471	WALTHAM	63.3	357.3	57.7	608.8	1087.0	1011.7
93	WATERTOWN	50.8	55.3	21.3	643.8	771.2	742.6
143	WINTHROP	29.8	18.3	7.8	61.4	117.4	104.7
599	XXXXXXXSUBTOTAL	1803.3	3382.7	2085.7	24525.7	31797.5	28608.0

GROUP=FULLY SUPPLIED NONMEMBERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
435	CHICOPEE	95.8	261.3	49.3	556.3	962.6	895.1
166	CLINTON	22.3	40.3	8.8	74.7	146.0	133.3
223	SO. HADLEY FD1	24.8	70.4	10.9	-67.9	38.3	23.4
272	SOUTHBOROUGH	9.8	21.2	3.8	-15.0	19.8	15.8
455	WILBRAHAM	13.7	9.3	3.6	14.9	41.6	36.0
599	XXXXXXXSUBTOTAL	166.4	402.4	76.3	563.1	1208.2	1103.6

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
61	CAMBRIDGE	97.4	481.9	72.0	572.6	1223.8	1117.8
362	CANTON	31.2	35.8	14.7	344.7	426.4	406.0
92	NEEDHAM	45.4	67.6	15.4	34.9	163.3	140.0
420	PEABODY	72.4	74.8	34.2	1342.9	1524.2	1472.6
74	WAKEFIELD	33.0	14.7	10.5	97.7	155.7	139.9
94	WELLESLEY	36.7	40.6	12.3	156.0	245.6	226.5
479	WESTON	23.1	7.5	4.6	-27.4	7.8	0.7
497	WINCHESTER	36.1	20.4	11.7	151.0	219.1	203.4
491	WOBURN	71.3	148.5	33.9	594.2	847.9	803.4

COMPONENTS OF UNACCOUNTED-FOR WATER IN 2020 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS) 26

GROUP=PARTIALLY SUPPLIED MDC MEMBERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
599	XXXXXXXSUBTOTAL	446.3	891.8	209.2	3266.5	4813.8	4510.2

GROUP=PARTIALLY SUPPLIED NONMEMBERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
265	FRAMINGHAM	100.7	156.3	36.2	219.6	512.7	456.9
172	LEOMINSTER	75.6	266.9	43.0	236.7	622.2	573.5
261	MARLBOROUGH	62.5	93.1	22.2	150.4	328.2	298.9
269	NORTHBOROUGH	14.1	11.6	3.8	6.8	36.3	31.4
501	WORCESTER	114.8	421.4	103.2	1490.4	2129.8	1970.8
599	XXXXXXXSUBTOTAL	367.6	949.3	208.3	2104.0	3629.2	3331.6

GROUP=OTHER MDC WATER USES

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
551	MILTON-CANTON	0.0	0.0	0.0	0.0	0.0	0.0
521	SPECIAL MDC	0.0	0.0	0.0	0.0	0.0	0.0
523	SYSTEM USES	0.0	0.0	0.0	7686.0	7686.0	7686.0
549	WACH-QPXT(WORC)	0.0	0.0	0.0	0.0	0.0	0.0
550	WACHUSETT-OTHER	0.0	0.0	0.0	0.0	0.0	0.0
599	XXXXXXXSUBTOTAL	0.0	0.0	0.0	7686.0	7686.0	7686.0

GROUP=TOTAL FOR CURRENT USERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
599	XXXXXXXXXXTOTAL	2783.6	5626.2	2579.5	38145.3	49134.8	45239.4

COMPONENTS OF UNACCOUNTED-FOR WATER IN 1980 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS) 10

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	DMS80	NDMS80	UMP80	RUAF80	UAF80	MR80
472	ACTON	21.1	13.1	5.3	14.6	54.0	0.898
342	AMHERST	31.1	71.2	11.9	-90.3	24.0	0.980
262	ASHLAND	18.9	4.3	4.3	40.5	68.0	0.840
1	ATHOL	9.5	20.2	4.2	44.1	78.0	0.814
113	AVON	5.6	3.7	1.5	8.3	19.0	0.870
473	BEDFORD	18.6	22.0	5.7	15.6	62.0	0.892
242	BILLERICA	48.4	45.8	13.4	0.5	108.0	0.919
553	BILLERICA-BEDFD	0.0	0.0	0.0	0.0	0.0	1.000
402	BRAINTREE	55.9	26.2	15.8	299.1	397.0	0.748
111	BROCKTON	140.8	95.4	50.9	1567.8	1855.0	0.635
243	CHELMSFORD	56.8	28.4	17.8	466.0	569.0	0.681
413	DANVERS	32.3	37.3	9.8	25.5	105.0	0.893
363	DEDHAM	27.8	26.9	10.4	259.9	325.0	0.686
118	EASTON	18.0	12.2	5.8	133.0	169.0	0.710
161	FITCHBURG	47.8	118.4	28.3	766.4	961.0	0.661
123	HOLBROOK	12.2	7.7	3.2	26.9	50.0	0.846
507	HOLDEN	17.8	5.3	5.3	152.6	181.0	0.658
287	HOPKINTON	9.2	4.8	2.1	-5.1	11.0	0.947
266	HUDSON	26.3	8.7	8.0	238.0	281.0	0.650
170	LANCASTER	8.8	1.7	2.0	24.6	37.0	0.815
251	LYNN	190.7	178.6	56.7	426.1	852.0	0.850
522	LYNNFIELD CWD	10.7	0.4	2.1	14.7	28.0	0.869
419	MIDDLETON	3.6	5.6	1.2	2.7	13.0	0.894
268	NATICK	59.0	18.1	16.3	378.6	472.0	0.710
234	NORTH ANDOVER	38.7	18.1	8.5	-33.3	32.0	0.962
493	NORTH READING	12.8	2.7	3.6	99.9	119.0	0.669
514	PAXTON	4.1	0.1	0.8	6.0	11.0	0.864
130	RANDOLPH	34.5	23.7	9.6	93.2	161.0	0.832
515	RUTLAND	3.4	2.4	0.9	2.2	9.0	0.899
177	STERLING	6.8	1.8	1.5	14.9	25.0	0.839
133	STOUGHTON	39.9	8.2	8.8	75.1	132.0	0.850
248	TYNGSBOROUGH	8.1	2.9	2.0	23.1	36.0	0.818
450	WARE	13.1	5.2	3.4	48.4	70.0	0.792
518	WESTBOROUGH	22.2	22.0	7.4	117.4	169.0	0.772
370	WESTWOOD	14.9	14.6	5.6	139.9	175.0	0.686
135	WHITMAN	11.7	7.2	2.9	7.2	29.0	0.900
496	WILMINGTON	19.0	53.6	10.4	157.0	240.0	0.770
552	XFROM MDC USERS	0.0	0.0	0.0	0.0	0.0	1.000
599	XXXXXXXXXXTOTAL	1100.1	918.6	347.4	5561.0	7927.0	.

[1] Due to slight programming differences in accounting for inter-town transfers, the unaccounted figures differ slightly from those in the text of the report.

COMPONENTS OF UNACCOUNTED-FOR WATER IN 1990 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS) 11

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	ADMS90	ANDMS90	UMP90	PRUAF90	PUAF90	RECDLEAK	UAF90	MR90
472	ACTON	25.7	16.2	6.4	17.7	66.1	21.7	44.4	0.898
342	AMHERST	31.5	72.8	12.1	-92.0	24.4	40.7	-16.3	0.980
262	ASHLAND	16.7	4.8	5.0	47.0	73.5	16.6	56.9	0.851
1	ATHOL	7.2	23.1	4.5	46.4	81.2	15.1	66.0	0.820
113	AVON	4.5	4.6	1.7	9.0	19.8	5.5	14.3	0.879
473	BEDFORD	18.9	25.9	6.2	15.9	66.9	20.8	46.1	0.892
242	BILLERICA	49.6	51.4	14.1	-0.9	114.3	47.5	66.8	0.919
553	BILLERICA-BEDFD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
402	BRAINTREE	57.4	30.9	16.6	314.3	419.1	55.9	363.2	0.748
111	BROCKTON	148.5	61.2	48.0	1494.1	1751.7	161.4	1590.3	0.635
243	CHELMSFORD	38.2	36.1	14.2	365.8	454.4	47.8	406.5	0.681
413	DANVERS	32.9	42.0	10.4	25.9	111.3	35.1	76.2	0.893
363	DEDHAM	27.8	26.7	10.3	259.4	324.3	34.7	289.6	0.686
118	EASTON	18.3	14.0	6.1	139.6	178.0	20.6	157.4	0.710
161	FITCHBURG	46.6	132.5	30.0	806.8	1016.0	100.6	915.3	0.661
123	HOLBROOK	13.6	8.3	3.6	29.8	55.3	12.1	43.2	0.846
507	HOLDEN	14.7	6.6	5.9	169.0	196.2	19.7	176.5	0.666
287	HOPKINTON	10.1	5.6	2.3	-5.8	12.3	7.8	4.4	0.947
266	HUDSON	29.2	10.0	9.0	266.3	314.5	30.2	284.3	0.650
170	LANCASTER	11.6	2.0	2.6	32.3	48.5	8.8	39.7	0.815
251	LYNN	130.0	182.7	53.9	391.4	758.0	179.3	578.7	0.858
522	LYNNFIELD CWD	11.4	0.6	2.3	15.7	30.0	7.7	22.4	0.869
419	MIDDLETON	4.0	7.3	1.5	3.0	15.8	5.0	10.8	0.894
268	NATICK	60.3	19.1	16.7	388.7	484.8	56.2	428.6	0.710
234	NORTH ANDOVER	32.7	20.8	7.7	-32.2	28.9	25.8	3.2	0.962
493	NORTH READING	14.3	3.4	4.1	113.3	135.1	13.7	121.4	0.669
514	PAXTON	4.5	0.1	0.9	6.6	12.1	3.0	9.1	0.864
130	RANDOLPH	36.4	30.0	10.6	101.9	178.9	35.7	143.2	0.832
515	RUTLAND	2.8	2.5	0.9	2.4	8.6	3.2	5.5	0.908
177	STERLING	9.4	2.3	2.1	20.7	34.6	7.2	27.4	0.839
133	STOUGHTON	42.6	9.1	9.4	80.4	141.6	31.6	109.9	0.850
248	TYNGSBOROUGH	10.2	3.5	2.5	29.1	45.3	8.4	37.0	0.818
450	WARE	6.4	5.4	2.4	33.5	47.8	8.1	39.7	0.802
518	WESTBOROUGH	23.4	24.8	8.0	126.4	182.7	26.9	155.8	0.772
370	WESTWOOD	11.9	16.4	6.1	149.9	184.2	20.1	164.0	0.693
135	WHITMAN	12.2	7.8	3.1	7.5	30.5	10.3	20.2	0.900
496	WILMINGTON	20.1	64.3	11.9	177.8	274.1	40.0	234.1	0.770
552	XFROM MDC USERS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
599	XXXXXXXXXXTOTAL	1035.9	974.7	353.4	5556.7	7920.7	1184.9	6735.8	.

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	ADMS00	ANDMS00	UMP00	PRUAF00	PUAF00	UAF00
472	ACTON	27.3	18.4	7.0	18.7	71.3	53.3
342	AMHERST	32.6	73.7	12.4	-93.8	25.0	-8.9
262	ASHLAND	18.7	5.6	5.6	52.7	82.6	68.8
1	ATHOL	6.9	27.9	5.0	49.8	89.6	77.0
113	AVON	4.7	5.3	1.8	9.4	21.2	16.6
473	BEDFORD	21.2	29.5	7.0	17.8	75.5	58.2
242	BILLERICA	53.7	66.9	16.4	-4.4	132.6	93.0
553	BILLERICA-BEDFD	0.0	0.0	0.0	0.0	0.0	0.0
402	BRAINTREE	61.5	33.6	17.9	337.9	450.9	404.4
111	BROCKTON	150.1	61.1	48.5	1507.5	1767.2	1632.6
243	CHELMSFORD	39.9	42.5	15.5	396.7	494.6	454.7
413	DANVERS	34.1	46.0	11.1	26.8	117.9	88.7
363	DEDHAM	27.8	26.7	10.3	259.4	324.3	295.4
118	EASTON	20.6	15.1	6.8	155.0	197.5	180.4
161	FITCHBURG	47.0	146.6	32.0	858.5	1084.0	1000.1
123	HOLBROOK	14.8	9.0	3.9	32.3	60.0	49.9
507	HOLDEN	15.8	7.6	6.5	183.0	212.8	196.4
287	HOPKINTON	11.2	6.1	2.6	-6.4	13.6	7.1
266	HUDSON	31.5	11.1	9.7	288.0	340.3	315.2
170	LANCASTER	12.8	2.2	2.9	35.7	53.6	46.2
251	LYNN	131.5	194.3	55.5	399.7	781.0	631.6
522	LYNNFIELD CWD	11.7	0.7	2.3	16.0	30.6	24.2
419	MIDDLETON	4.1	9.5	1.7	3.0	18.3	14.2
268	NATICK	61.5	20.4	17.2	398.9	498.1	451.2
234	NORTH ANDOVER	38.8	23.6	9.0	-37.4	34.0	12.5
493	NORTH READING	15.0	3.8	4.3	118.9	142.0	130.5
514	PAXTON	4.8	0.1	1.0	7.1	13.0	10.5
130	RANDOLPH	37.3	35.2	11.4	107.6	191.6	161.8
515	RUTLAND	3.1	2.5	1.0	2.7	9.4	6.7
177	STERLING	12.1	2.6	2.7	26.4	43.9	37.9
133	STOUGHTON	44.4	9.9	9.9	84.0	148.2	121.8
248	TYNGSBOROUGH	11.5	4.0	2.8	32.7	51.0	44.0
450	WARE	6.5	5.5	2.5	34.2	48.8	42.0
518	WESTBOROUGH	25.2	25.9	8.5	134.7	194.3	171.9
370	WESTWOOD	12.6	17.7	6.5	160.0	196.7	179.9
135	WHITMAN	12.6	9.1	3.3	7.6	32.6	24.0
496	WILMINGTON	20.3	75.4	13.3	196.2	305.1	271.8
552	XFROM MDC USERS	0.0	0.0	0.0	0.0	0.0	0.0
599	XXXXXXXXXXTOTAL	1085.3	1075.2	375.5	5817.1	8353.1	7365.6

COMPONENTS OF UNACCOUNTED-FOR WATER IN 2020 UNDER MODERATE GROWTH SCENARIO(MILLIONS OF GALLONS) 13

GROUP=POTENTIAL FUTURE USERS

CODE	NAME	ADMS20	ANDMS20	UMP20	PRUAF20	PUAF20	UAF20
472	ACTON	29.2	21.7	7.7	19.9	78.5	67.7
342	AMHERST	36.0	76.6	13.2	-99.2	26.7	6.4
262	ASHLAND	23.0	7.6	7.0	65.3	102.9	94.6
1	ATHOL	7.9	44.1	7.1	67.3	126.4	118.8
113	AVON	5.3	6.4	2.0	10.7	24.4	21.7
473	BEDFORD	25.5	37.7	8.6	21.3	93.0	82.6
242	BILLERICA	64.0	99.9	21.5	-11.5	173.9	150.2
553	BILLERICA-BEDFD	0.0	0.0	0.0	0.0	0.0	0.0
402	BRAINTREE	72.6	38.3	21.0	396.1	527.9	500.0
111	BROCKTON	150.5	63.3	48.9	1519.8	1782.4	1701.7
243	CHELMSFORD	44.7	53.6	18.2	463.2	579.7	555.8
413	DANVERS	36.6	57.1	12.7	28.6	135.0	117.5
363	DEDHAM	28.3	28.6	10.7	268.5	336.2	318.8
118	EASTON	25.8	16.8	8.3	189.0	239.9	229.6
161	FITCHBURG	49.2	182.9	37.5	1001.5	1271.1	1220.8
123	HOLBROOK	17.0	10.7	4.5	37.3	69.5	63.5
507	HOLDEN	18.4	9.3	7.6	215.2	250.5	240.6
287	HOPKINTON	13.3	6.8	3.0	-7.2	15.8	11.9
266	HUDSON	34.4	12.7	10.7	316.9	374.8	359.7
170	LANCASTER	15.6	2.5	3.5	43.3	64.9	60.5
251	LYNN	143.3	238.1	63.3	445.7	890.4	800.7
522	LYNNFIELD CWD	12.2	0.8	2.4	16.7	32.1	28.3
419	MIDDLETON	4.3	14.5	2.3	2.9	24.0	21.5
268	NATICK	65.0	23.5	18.4	426.5	533.5	505.4
234	NORTH ANDOVER	54.6	30.6	12.4	-50.8	46.9	34.0
493	NORTH READING	15.9	4.3	4.6	127.6	152.5	145.6
514	PAXTON	5.6	0.1	1.1	8.2	15.0	13.5
130	RANDOLPH	38.7	44.9	12.7	117.7	214.0	196.1
515	RUTLAND	3.9	2.5	1.2	3.5	11.2	9.6
177	STERLING	17.9	3.0	3.9	38.4	63.2	59.6
133	STOUGHTON	48.0	10.8	10.7	90.8	160.2	144.4
248	TYNGSBOROUGH	14.3	4.6	3.5	40.5	62.9	58.7
450	WARE	7.0	5.7	2.6	36.3	51.7	47.6
518	WESTBOROUGH	28.2	25.9	9.2	146.1	209.4	195.9
370	WESTWOOD	13.8	20.7	7.2	178.6	220.4	210.3
135	WHITMAN	13.5	13.4	3.9	7.8	38.6	33.4
496	WILMINGTON	20.6	98.9	16.1	234.3	369.9	349.9
552	XFROM MDC USERS	0.0	0.0	0.0	0.0	0.0	0.0
599	XXXXXXXXXXTOTAL	1204.3	1319.1	429.1	6417.0	9369.5	8777.0

APPENDIX D - SURVEY RESULTS

D-1 Domestic Surveys

D-2 Major Users Survey

OBS = Observation Number
MUMUSEXX = Use of Municipal Water (Excluding Self-Supplied)
USECHG = % Change in Use of Municipal Water
MUEMXX = Number of Employees
KGPE = Thousands Gallon Per Employee
. = Not Available/Applicable

D-3 Community Surveys

APPENDIX D-1: DOMESTIC SURVEYS

HOUSEHOLD CONSUMPTION SURVEYS

During Phase 1, samplings of household meter records were compiled and analyzed in six MDC-served communities. The samplings included households in single- and multi-family areas. Single-family water consumption was further examined according to areas identified by local water departments as having high consumption primarily because of outside lawn and landscape watering and areas not having such characteristics.

PHASE 1 HOUSEHOLD SURVEY FINDINGS

The results of Phase 1 samplings of 844 households in single- and multi-family units are reported in a memorandum submitted at the conclusion of Phase 1; the significant findings are summarized below.

1. The single-family areas average household consumption for the six towns in 1979 was 392 gallons per day in the high consumption areas and 186 gallons per day in the other more "typical" user single-family areas. Generally, the physical difference in the two kinds of areas is best described by lot size. In the high consumption areas, lot sizes ranged from 15,000 square feet to one acre. In the lower consumption areas, lot sizes were 15,000 square feet and under. Average household consumption found in samples within the six towns is shown in Table D-1. When comparing 1979 consumption in large lot areas to small lot areas, the ratios range between 1.65 and 2.73:1.

Table D-1

Average Consumption per Household Sampled,
609 Single-Family Households

(gallons per day)

	1980		1979		1976		1972	
	lrg. Lots	sml. Lots	lrg. Lots	sml. Lots	lrg. Lots	sml. Lots	lrg. Lots	sml. Lots
Belmont	436	119	359	131	398	127		
Framingham			349	184	369	186	342	213
Quincy			418	207	383	184	381	174
Milton			371	225	389	238	389	244
Needham	281		307	170	293	186		
Waltham			547	205	555	211	332	211
Grand Average	359	119	392	186	398	189	361	211

2. In two- to four-family and larger multi-family units, 1979 household consumption averaged 149 gallons per day and ranged from 139 to 156 gallons in 578 units in Belmont and Quincy. Large mixed income to luxury multi-family developments were included in the large user telephone survey, and the average for 1979 was 166 gallons per household with the range between each complex of 128 to 2020 gallons for 3,467 units surveyed in Boston, Newton, and Waltham. Per capita consumption in these units averages 75 gallons per person per day.

3. In order to determine what effect household size might have on observed variability in single-family household consumption, the number of persons recorded as living at the sampled addresses was determined in the Milton survey. By matching these data against household consumption, a positive correlation was found between water use and numbers of persons per household. The Milton data, although exhibiting considerable variability from household to household, suggested that a household- or dwelling-related component may be separable from per capita-related use by linear regression analysis. Accordingly, in order to further expand and test Milton survey findings, Melrose, a community similar to Milton, was selected for sample analysis in Phase 2.

PHASE 2 MELROSE FINDINGS, SUMMARY

The Melrose sample of 817 households found average household consumption in 1981 to be 314 gallons per day in so-called large-lot areas and 151 gallons in small-l areas. Consumption in two-, three-, and four-family households tended to be similar to that in small-lot, single-family areas--151 to 151 gallons per day. In larger multi-family complexes, the average consumption was 196 gallons per household and ranged from a low of gallons to a high of 318 gallons, probably reflecting t fact that units sampled ran the entire gamut from famil housing to low-occupancy housing for the elderly.

Findings on average household consumption from the Melrose samples fit within the range of consumption fou for various housing types in Phase 1. As with Milton, data were also collected for persons per household, as January 1, 1981, the beginning of the year for which household consumption data were collected. Findings on household consumption per capita indicate compatibility with Milton samples in many respects, although in small-lot areas, samples for the two towns seem to have hit the extremes of consumption for that housing type.

CHARACTERISTICS OF SAMPLE TOWNS

The two communities, Milton and Melrose, are somewhat similar in socioeconomic characteristics as measured by indicators in the 1970 census. Both are suburban, generally white-collar, middle-size in terms of population, and above the median income for the Boston Metropolitan area and the state. Melrose grew more rapidly than Milton in the 1960s and has a greater percentage of multi-family housing than Milton. Milton in terms of the 1970 census, had higher income, higher housing value, and a somewhat greater percentage of white-collar persons. Selected characteristics from th 1970 census are presented in Table D-2. The towns were considered similar enough in characteristics that sampl of household consumption from each town should be rough comparable.

Table D-2

Characteristics of Survey Towns
1970 Census

Population, 1970	Melrose	Milton
Total population	33,180	27,190
Percentage increase, 1960-70	12	3.1
Percentage employed, mfgr.	21.1	10.7
Percentage, white-collar occ.	64.8	73.0
Percentage in gov't	14.7	20.1
Median family income	$12,424	$14,728
Housing Characteristics, 1970		
Total year-round units	10,210	8,058
Percentage single-family	62	82
Percentage 2- to 4-family	33	16
Percentage 5-family or more	14	1
Percentage structures 30+ yrs old	68	65
Median value, owner occupied	$23,900	$30,500
Median rent, renter occupied	$124	$124
Population/Owner occupied	3.6	3.5
Population/Renter occupied	2.4	2.7

SAMPLE DESCRIPTION

In each town, approximately 2 percent of the single-family housing units were randomly sampled. In Melrose, in addition, samples were taken of two-, three-, four-, and five-unit or more structures. After consultation with water department personnel, single-family areas which were felt to have high water use were identified, as were single-family areas with more normal water use. In Milton, the high water use, single-family areas tended to be those with one-acre house lots, while in Melrose the difference is not so much lot size as property value and extent of landscaping. The general characteristics of the samples are presented in Table D-3. In Milton, the data collected were for water use and persons per household in 1979; in Melrose, the data are for 1981. There is no indication that consumption has changed since these samplings and the two different years for the towns are felt to be comparable.

Table D-3

Sample Description--Milton and Melrose

Housing Type	Average Lot Size, SF Milton	Average Lot Size, SF Melrose	No. of Units Sampled Milton	No. of Units Sampled Melrose
Single-family, Lrg.	10,000	43,560	55	79
Single-family, Sml.	7,500	7,500	67	73
Two-family	-	-	-	130
Three-family	-	-	-	51
Four-family	-	-	-	92
Five-family or more	-	-	-	392
			122	817

FINDINGS

Average Consumption

Table D-4 summarizes the average household sizes, household, and per capita consumption found in the Milto and Melrose samples; variability measured by standard deviations are also shown. In the Milton sample, large household sizes and greater variability in household and per capita consumption was found than in Melrose. In Milton, greater variation was found in household consumption, especially in the large-lot (one acre) areas, possibly because with a much larger lot size than in Melrose, there is far greater variation in lawn area and therefore irrigation. The Milton data indicate that variation can be reduced by considering household size (e.g., variation in per capita consumption is relatively below that of household consumption). Melrose data, however, suggest little difference in household and per capita variations.

Table D-4

Sample Findings--Household Size, Household, and Per Capita Consumption

	Persons/Household			Gallons/Household/Day			Gallons/Person/Day		
	$\bar{X}$	S	C.V.	$\bar{X}$	S	C.V.	$\bar{X}$	S	C.V.
Melrose, 1981									
SF, large lot	3.49	1.71	0.49	314	174	0.55	102	54	0.53
SF, small lot	3.01	1.41	0.47	151	52	0.34	56	18	0.35
Two-family	2.52	1.21	0.56	151	62	0.41	70	31	0.45
Three-family	2.35	1.02	0.42	151	65	0.46	62	20	0.33
Four-family	2.39	1.12	0.47	149	61	0.41	76	32	0.42
Milton, 1979									
SF, large lot	4.20	2.09	0.50	350	218	0.62	92	50	0.55
SF, small lot	3.46	1.53	0.44	228	110	0.48	70	27	0.39

Notes:

$\bar{X}$ = the sample mean or average
S = the standard deviation
C.V. = the coefficient of variation or the ratio of the standard deviation to the mean

Regression Analysis

Figure D-1 plots the regression lines fitted to Milton and Melrose gallons per household for various household sizes. The lines for Milton single-family and Melrose large-lot, single-family are essentially parallel with their slopes increasing between 45 and 52 gallons per person. Total consumption for these household groupings seems to differ more for dwelling-related factors (lot size and outdoor use) than from their per person use. The Melrose small-lot and small multi-family regression lines exhibit a flatter slope with much lower per person use calculated (26 gallons per person). This may have occurred in part because the small-lot and small multi-family households were significantly smaller with many one- and two-person households; this type of construction at the lower end of household sizes may be expected to have a higher household- or dwelling-related proportion and less variability between households. For whatever the reasons, the Melrose data are somewhat different from Milton's; but the overall findings are useful in establishing the range for person- and household-related consumption.

Although no additional data were collected on the sample households' age composition, income, numbers of persons

at home during the day, meter registration problems, in-house leakage, and water-using appliances, it is felt these factors may have great bearing on household-to-household variability. A technical factor which might also be of significance is that household population, taken as of a certain data and assumed as constant throughout the year, may vary considerably during the course of the water consumption year, particularly for smaller households, because of ownership turnover, death, marriage, divorce, birth, and movement of family members setting up their own housekeeping.

Given such causes of variability, a second regression line was computed for those households having average consumption of less than 100 gallons per person (GCD); the assumption being that factors such as the above, causing extreme variation in in-house consumption would be largely eliminated. The assumption reduced the original sample by approximately 17 percent, with a 37 percent reduction in large-lot households and approximately 10 percent each in small-lot and small single-family households.

Table D-5 presents the linear regression values for straight lines calculated to best fit the original sample data, and those households below the 100 GCD cutoff. The values are for the equation:

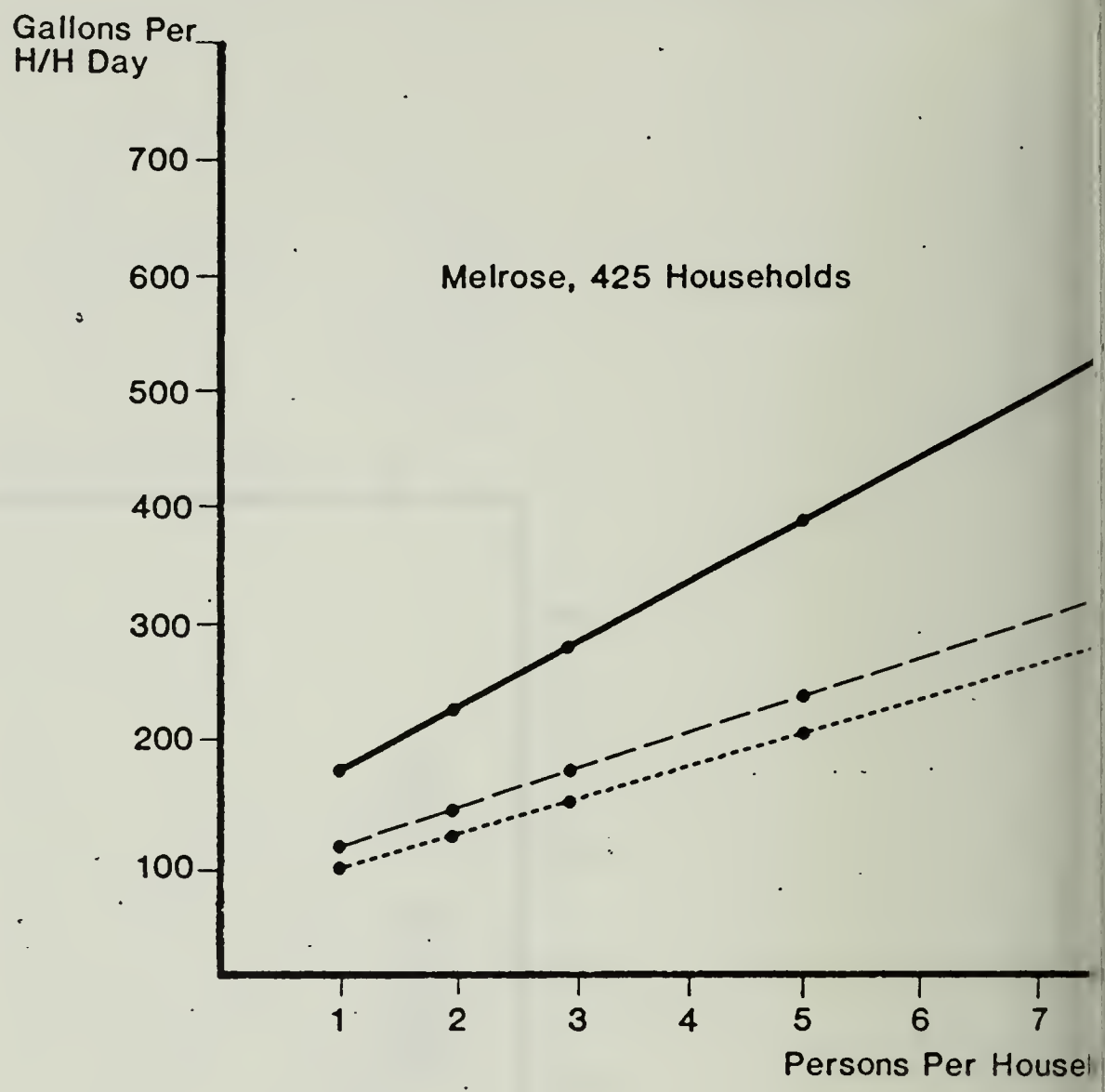
$$y = a + bx$$

where: a is the y-intercept, a constant gallons per household per day for all households and,

b the slope of the line in gallons per day per person

Figure D–1.

Linear Regression Lines,
Melrose & Milton Household Consumption I



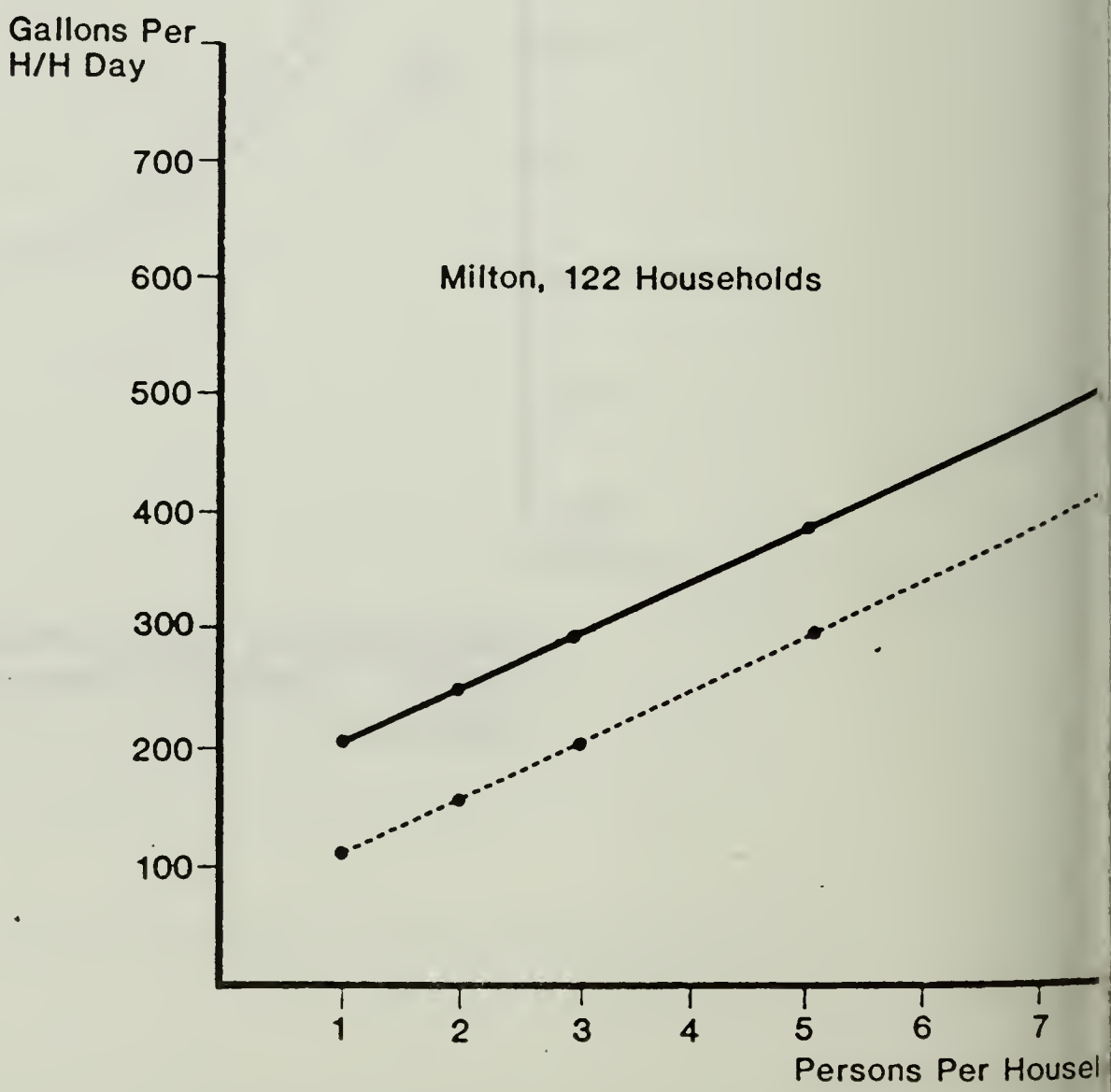
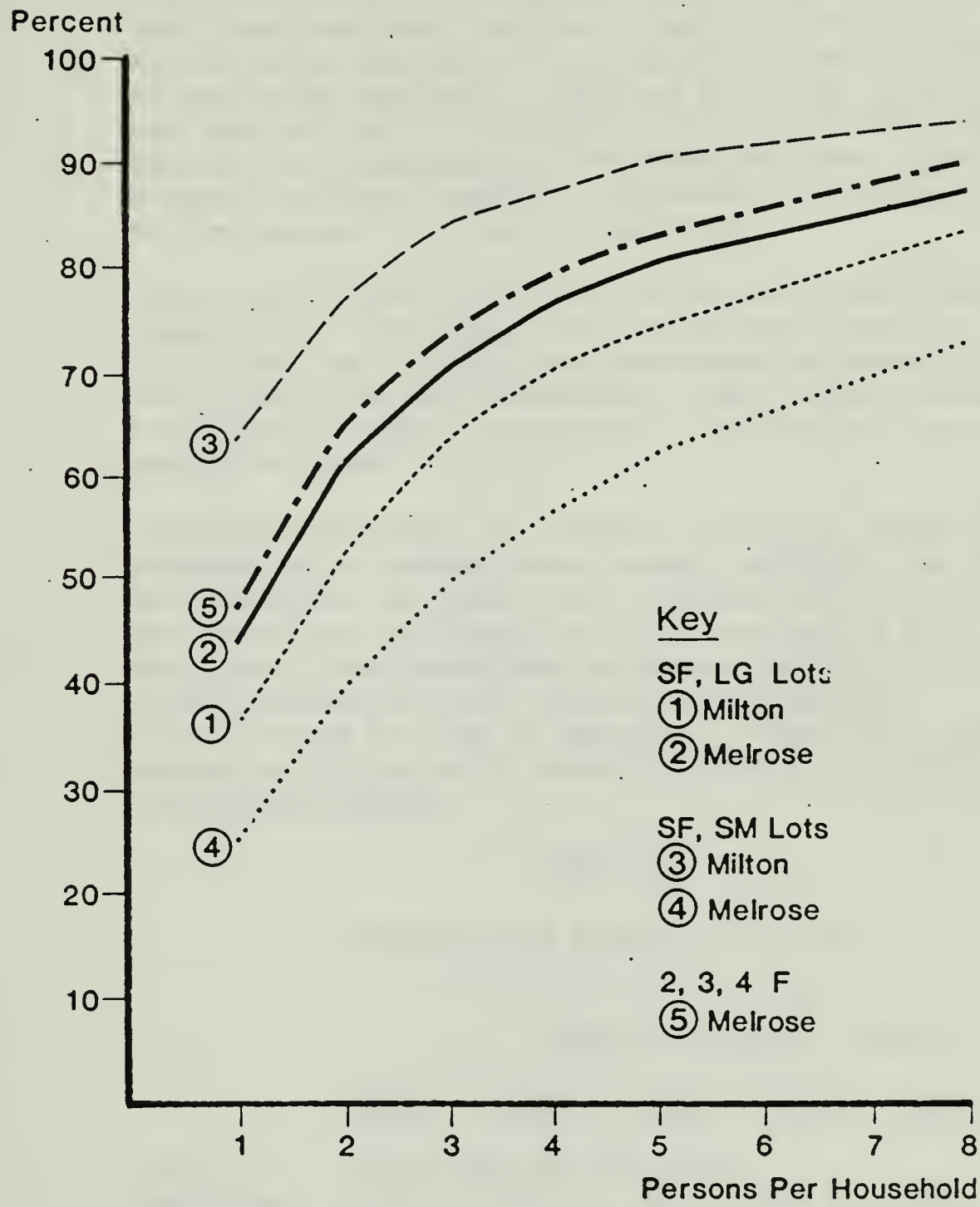


Figure D-2.

Person - Related Consumption as a Percentage of Total Household Consumption



The above data, although not totally conclusive in isolating person-related and dwelling-related components of consumption proved extremely useful, when compared to literature findings in developing coefficients for the disaggregated demand model.

SWIMMING POOL SURVEY

Calls to the regional office of the National Swimming Pool Institute and a pair of large pool installers indicated an absence of local statistics which might be of use in the analysis. Opinions were that pools continue to grow in popularity, not just in high-income suburbs but throughout the Metropolitan area. The trend however, has been somewhat interrupted in the past year or two because of economic conditions.

Typical pool sizes are in the 16,000 to 25,000 gallon range with 16'x32' being the most common dimension. With filtration, no draining was considered necessary either for cleaning or for winterizing. Only a small amount of water was considered necessary to make-up for evaporation and other losses.

Building departments in several communities supplied information on recent years' permit activity; the data are summarized in Table D-8. Relating this information to households, the permit activity amounts to 0.23 new pools per 1,000 households in Boston and 0.86 pools per 1,000 households in the remaining communities. Extrapolating for the 44 cities and towns, this could amount to 560 new pools annually without any further market penetration.

Table D-8

Swimming Pool Permits, All Types

	Number of Permits Issued					
	1982	1981	1980	1979	1976	1972
Boston	(less than 50 per year)					
Arlington	13	25	14	16	19	18
Brookline*	4	12	6			
Lexington		14	(10-20 per year)			
Newton	(±20 per year)					
Quincy	19	42				
Waltham		25	26	27		

*In 1957 and 1959, 3 each.

Source: Telephone calls to Building Departments and others.

An industry publication[1] provided historical statistics on swimming pool growth in the Northeast[2] and other regions and the United States. The number of swimming pools per 1,000 households (interpolated to match the reported swimming pool data) is summarized in Figure D-3 and Table D-9 for the Northeast, California and Hawaii, and Florida.

Table D-9

Residential Swimming Pools Per 1,000 Households*
Selected Regions

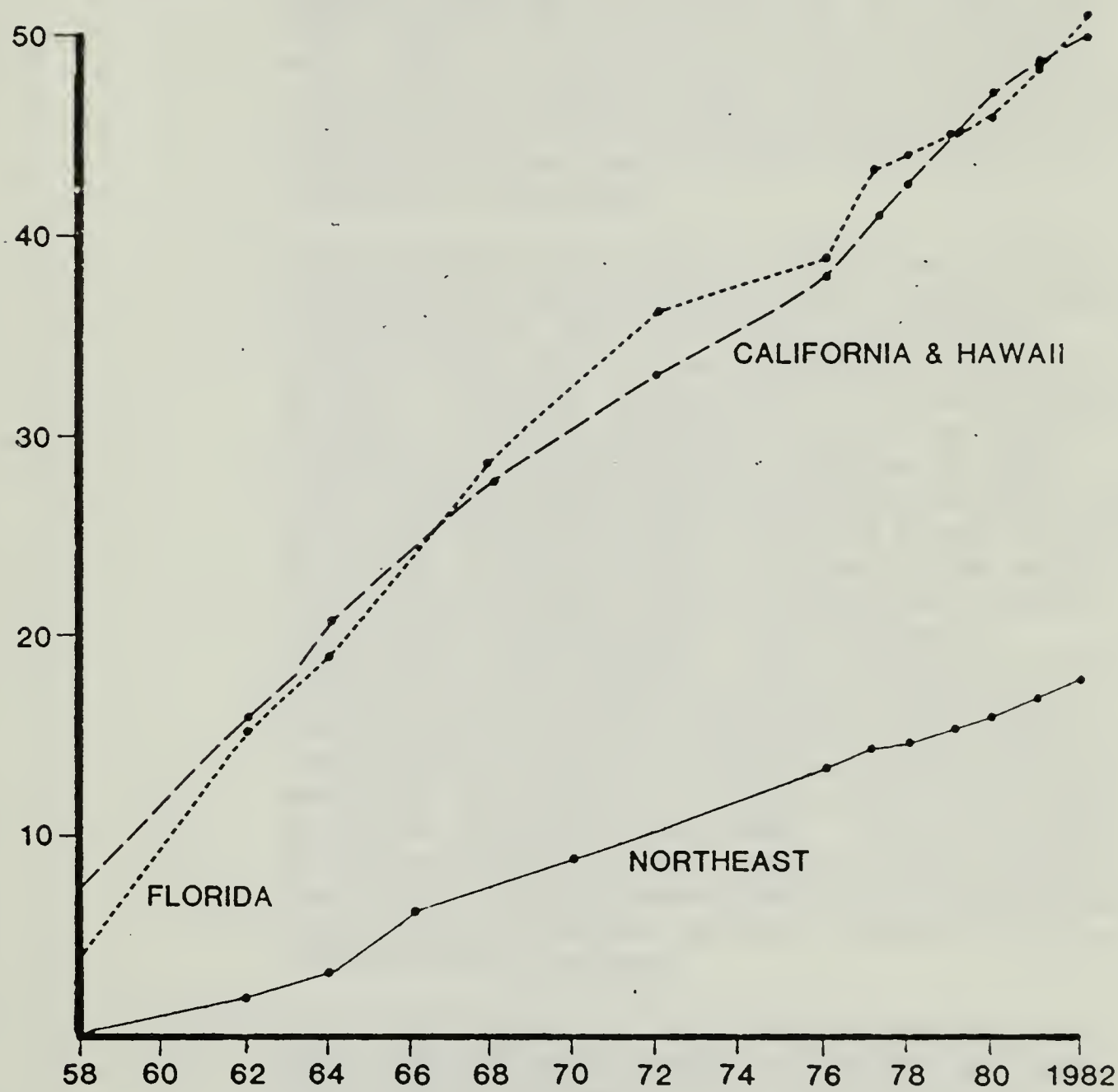
	Northeast	California and Hawaii	Florida
1958	0.80	7.95	4.77
1962	2.42	16.60	15.15
1964	3.43	20.65	18.83
1968	6.62	27.60	28.09
1972	10.22	32.93	35.05
1976	13.54	37.06	37.71
1977	14.13	39.81	41.16
1978	14.67	41.76	42.22
1979	15.19	43.98	43.60
1980	15.66	45.89	44.95
1981	16.36	47.22	47.45
1982	17.12	48.14	49.96

*Only the total number of pools is reported for each region. Based on other reported data on residential and other types of pools for the United States, the regional totals were adjusted on a percentage basis.

Sources: (1) Swimming Pool Age, November 1982, tables entitled "Growth of Swimming Pools by Type," and "Number of Pools by Area"; and (2) for household data, U.S. Department of Commerce, Statistical Abstract, various years.

Figure D-3.

Residential Swimming Pools Per 1000 Households



Assuming regional data are applicable to the MDC service area, it is estimated there are currently 13,000 pools of all types in the MDC's 44 cities and towns. If they grow at the extrapolated rate per 1,000 households, there could be 19,300 in 1990, 26,500 in 2000, and 42,400 by 2020, using the M.E.P.A. scenario for households.

In order to evaluate the impact of such numbers on domestic water consumption, the following assumptions have been made:

1. Seventy-five percent of all residential pools are not drained for the winter. This is based on Swimming Pool Age data indicating, for the Northeast, that in 1981 nearly 90 percent of all pools were either of concrete construction (presumably in-ground) or in-ground pools with vinyl liners and that 80 percent of all pools are residential. The assumption is that most in-ground pools are not drained for the winter.

   Linear growth in the number of pools has occurred throughout the country since 1958. Starting from a very small base, there has been a twenty-fold increase since 1958 in the Northeast, and six- and ten-fold increases, respectively, in California and Florida. A linear projection of pools per 1,000 households for the Northeast indicates by 1990, 24.14 pools; by 2000, 30.40 pools; and by 2020, 45.0 pools per 1,000 households. At such rates, by 2020 the market would have been saturated to the extent that the hot weather states of California, Hawaii, and Florida now experience. This degree of penetration seems doubtful, even ultimately, in the Northeast with its short season and cold climate. The extrapolated rates indicate annual average pool construction in the 44 communities of 630 units in the 1980s; 720 units in the 1990s, and 1,590 units in the two decades of the 2000s. These are not out of line with what has been indicated and estimated from calls to local communities on pool permits but the question of whether and when saturation may be readied seems to be open.

2. During the season from May through September, 25 weeks, make-up water amounts to 3 inches per week, approximately 960 gallons for a 16'x 32' pool. This make-up water includes net losses through evaporation, leakage, and once-per-week maintenance such as vacuuming and back-washing filters.

3. Pool sizes are assumed to remain at 16'x 32' on the average. According to Swimming Pool Age,[1] pools smaller than 15'x 30' have increased from 19 percent in 1976 to 25 percent in 1981; those larger than 15'x 30' but smaller than 20'x 40' have declined slightly from nearly 72 percent to 70 percent during the period; larger pools have declined from 9 percent to roughly 5 percent of the number of pools.

4. Pools which are drained for the winter are assumed to be smaller, mostly on-ground pools. The average assumed for these pools is 16,000 gallons.

Table D-10 summarizes the calculations based on the above data and assumptions. The estimate is that residential pools in the 44 communities currently account for approximately one MGD demand on the system; if there is increased penetration of the market projected according to rapid growth rates in the past, with there being by 2020 as many pools per 1,000 households as now exist in Florida, California, and Hawaii, then demand could rise to 3.3 MGD. The projected rate is considered unlikely for evaluation purposes in formulating changes in household use coefficients.

Table D-10

Water Consumption: Residential Swimming Pools
44 MDC Cities and Towns

	Million Gallons Per Year				
		Spring Fill			Gallons
	New Pools Initial Fill	Winter-Drained Pools	Make-Up Water	Total MGY	Per Day
1980	11.2	52	312	375	1.03
1990	12.6	77.2	463	553	1.51
2000	14.4	106	636	741	2.07
2020	31.8	170	1,018	1,140	3.34

PLUMBING FIXTURES AND APPLIANCE SURVEYS

Telephone calls were made to 24 plumbing supply houses, retailers, and manufacturers of speciality water-saving devices. The most significant finding is that because of industry anticipation of changes in plumbing codes and Massachusetts' enactment of standards requiring reduced flush quantities for toilets and reduced flow for showerheads, the only devices and fixtures now being delivered by manufacturers are water-saving models.

Of 11 wholesale and retail plumbing supply houses whose main customers are plumbing contractors, all indicated their toilets, showerheads, and faucet fixtures were water-saver varieties. Only one of these sold washer and dishwasher appliances, but these were not water-saver varieties per se.

An additional nine retail or speciality distributors (manufacturers' representatives, for example) all carry only the water-saver showerheads, seven handle water-saver aerators or faucet systems with water-saving aerators, and five distribute water-saving toilet dams. One distributor, also, now carries dishwashers with water-mizer cycles saving 2 to 5 gallons of a normal 12.5 gallon cycle and clothes washers with a 39.5 gallon full cycle consumption and a 24 gallon small load selector.

Information offered on sales of showerheads, toilets, and other items was spotty. One source suggested 15 percent of the market had been reached for water-saving showerheads with relatively minimal effort. Another reported 2,150 showerheads sold during the first six months of 1982 (in 95 stores) and of that, more than three-quarters were sold (1,659) in response to one newspaper advertisement. A retail hardware store, with a large market, indicated thousands of showerheads had been sold in response to a demonstration display in their store and regular newspaper advertisements throughout the year. One or two wholesale suppliers suggested plumbers were a major source of their sales of water-saver showerheads--as a plumber replaced a water heater, the householder was usually persuaded to replace their showerhead in the interests of further energy- and water-savings.

Sales of water-saving toilets in the area presently seem keyed to the rehabilitation and replacement market with a 35- to 40-year cycle suggested by one. Of the plumbing supply houses contacted that do not nearly account for the total market in the area, it appears that several hundred to several thousand water-saver toilets are now being sold in the Boston Metropolitan area.

A summary of significant comments received during the telephone survey is contained in Table D-11.

Table D-11

Comments from Plumbing Fixture and Appliance Survey

Source No.	Sales	Comments
Showerheads		
18	less than 15 percent of of national market reached	• retail hardware chain a big outlet • problem getting people to do anything to their plumbing • of 2 million showerheads sold, less than one percent to save water
1	sold thousands; big mover in the past 2 years	• institutions, hotels; plumbers when replacing hot-water heater encourage new water-saver showerhead installation also • all showerheads now coming from manufacturers are water-saver type
2	thousands sold, very good item	• display in store and newspaper advertisements get excellent response
4	±50 per month	• all now water-saving showerheads • inner urban area mostly replacement market
17	sold 2,150 January-July, 1982; 1,659 in response to advertisement	• 95 stores in Northeast
5	probably 40 percent of replacement showerheads and aerators sold are water-saving variety and number is growing	• still carry conventional but people now aware and looking for water-saver models
6	spotty sales, varies from none to 20 per week	• all now water-savers
13	250,000 sold in a year nationwide--only a small percentage of market	• state law requires pressure or temperature sensitive anti-scald mixer valve
12	guess 1/5,000 families buying showerheads	
14	50,000-100,000/year in United States	
15	100,000/year in United States	• 15-20 percent in Boston market area

Source No.	Sales	Comments
Toilet Dams		
18	have sold 20,000 personally; millions in Washington, DC area	• only 4-5 returned as unsatisfactory • successful in all but one make of toilet
6		• toilet dams do not sell very well
12	guess 1/10,000 families buying toilet dams	• public agencies do not encourage them; push the plastic jugs instead
Low-Flush Toilets		
1	4,000-5,000 sales/year	• all water-savers now standard • 35- to 40-year cycle for breakage and replacement • Boston area market
2		• people seem to prefer the standard models if they can get them because they look better
4	±75 per month	• all coming through now are water-savers • inner urban area market with probably five large competitors
5		• all now are water-savers; any conventional toilets now manufacturer are for shipment out of the country
6	200-300/year	• all are water-savers • inner urban market • almost all are replacement because of breakage; not much because of remodelir
Aerators		
1	200-500/year	• Boston area market
2		• good item but not as much as showerhead
17	1,000/year	• 95 stores
6		• all faucets now have water-saver aerators
12	guess 1/100 families buying them	
14	±200,000/year sold in United States	

Source No.	Sales	Comments
Dishwashers/ Washing Machines		
2		• carry only standard, no call yet but people becoming more aware • large Boston area market
16		• dishwashers with water-mizer cycle saving 2-5 gallons on a 12.5 gallon cycle; washers with 24 gallon small-load selector (39.5 gallons cycle)
Other		
	sells a few saver showerheads	• cannot compete with discount stores and large wholesalers on widgets, showerheads, etc. • not much profit in water-saving items; cannot advertise without expectation of big volume • mostly sell faucet parts to landlords and to people who do not call plumber

APPLIANCE DATA

Data on dishwasher and clothes washers are available only for the national market. Manufacturers' shipments are summarized in Table D-12 and indicate a leveling of dishwasher, clothes washer, and garbage disposal units since the early 1970s with short-term fluctuations tied to the number of housing starts. Table D-13 indicates, for national data, percentage of households having dishwashers, clothes washers, and garbage disposals.

Table D-12

Household Appliances Shipped

	(Thousands of Units)		
	Dishwashers	Clothes Washers	Disposals
1967	1,586	4,323	1,356
1968	1,960	4,482	1.812
1969	2,118	4,379	1,943
1970	2,116	4,094	1,976
1971	2,477	4,609	2,291
1972	3,199	5,107	2,771
1973	3,702	5,504	2.974
1974	3,789	5,580	3,020
1975	2,463	4,123	2,002
1976	3,075	4,510	2,455
1977	3,200	4,972	2,823
1978	3,370	5,024	3,212
1979	3,350	4,940	3,117
1980	2,515	4,495	2,732

Source: U.S. Department of Commerce, Bureau of Industrial Economics, U.S. Industrial Outlook, for 1975 and for 1981.

Table D-13

Percentage of Households with Water-Using Appliances
(U.S. Summary)

	(Percentage of Wired Homes With)		
	Dishwashers	Clothes Washers	Disposals
1960	7.1	55.4	10.5
1965	13.5	57.4	13.6
1970	26.5	62.1	25.5
1975	38.3	69.9	38.8
1978	41.9	75.2	42.9
1979	43.0	77.3	43.0

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Market.

APPENDIX D-2: MAJOR USERS SURVEY

As part of the assessment of nondomestic use, approximately 250 of the 400 major users of more than 10 million gallons in 1980 were surveyed. Major users who had been surveyed in Phase I of this study were contacted again for updated information on water use employment and output, type of use and conservation measures implemented or planned. The major users were identified from interviews with water departments in each of the MDC-served communities and from a list of major users compiled for the 1975 Water Usage Study prepared by the Water Resources Research Center of the University of Massachusetts at Amherst and Curran Associates (known as the Curran Report). A copy of the survey form is included in this appendix.

Table D-14 summarizes use by the 409 users of more than 10 million gallons per year by size of user. The 60 largest users of more than 100 million gallons per year consume almost 60% of major user water use, or 32% of all nondomestic use.

Also included in this appendix is a list of the major users, grouped by industry or activity and showing municipal water use in 1972 and in 1980, the percent change in water use, employment in 1980, and thousand gallons per employee. This list includes more than the 409 1980 major users because it includes, for comparative purposes, companies which are no longer major users. This information is based on data collected from user interviews, water department interviews, and industrial directories. Factors such as broken meters, lack of internal meters, and multiple facilities have made it difficult to develop data which are consistent between sources and over time; adjustments have been made to ensure as much consistency as possible.

TABLE D-14

USE BY SIZE OF 1980 MAJOR USER

Size	Industrial		Commercial/ Institutional		Intertown Transfers		Total	
	MGY	No. Users	MGY	No. Users	MGY	No. Users	MGY	No. Users
Over 100 MGY	8,546	34	4,740	24	990	2	14,276	60
50-99 MGY	1,787	26	1,634	22	59	1	3,480	49
30-49	830	23	1,643	42	76	2	2,559	67
10-29	1,712	98	2,209	130	97	5	4,018	233
TOTAL	12,875	181	10,236	218	1,222	10	24,333	409

FOOTNOTES

[1]"Exclusive 1982 Swimming Pool Industry Market Report," Swimming Pool Age and Spa Merchandise, Vol. 56 (November 1982), pp. 111-115.

[2]The Northeast includes the New England states; the Middle Atlantic states of New York, New Jersey, and Pennsylvania; the states of Maryland, Delaware, and West Virginia; and the District of Columbia.

Company Name _____ City Code _____
Company Code _____
Description of Product/Facility _____ SIC: _____

Number & location of facilities (if more than 1) _____

✓ = information complete
* = information needed

1. WATER CONSUMPTION (mgy, if cubic feet indicate)
(We would like to have data for at least 2 recent years)

Year	Total (*)	Municipal (*)	Self-Supplied (*)
1972	_____( )	_____( )	_____( )
1977	_____( )	_____( )	_____( )
1978	_____( )	_____( )	_____( )
1979	_____( )	_____( )	_____( )
1980	_____( )	_____( )	_____( )
____	_____	_____	_____
____	_____	_____	_____

*Source of data U = user interview; W = water dept. interview; C = Curran; B = B&V survey for MDC; M = MDC sewer reports (from water depts.); P = Bechtel survey of nonpotable use.

- (If change is significant), major reason _____

- Are major changes expected in the future? _____

- (if they have self-supplied), source of self-supply _____

Quality: Is the quality of self-supplied water adequate? _____
Do you treat the water? _____ Can you use nonpotable? _____

Quantity: Are the supplies dependable? _____

Are there any (other) sources for self-supplied water -- river, well, etc?
_____ (if yes) Have you ever considered using this water? _____

NOTES:

City/Company Code_____

2. EMPLOYMENT AND OUTPUT
(Try to get data for same years as water consumption data; especially 2 recent years)

Year	Equivalent Full-time Employees	Output (Units =)
1972	_____	_____
1977	_____	_____
1978	_____	_____
1979	_____	_____
1980	_____	_____
____	_____	_____
____	_____	_____

3. TYPE OF USE (percent of total consumption for municipal and self-supplied)

Type	Municipal (%)	Self-supplied (%)	Comments (if any)
Sanitary	_____	_____	_____
Process	_____	_____	_____
Cooling	_____	_____	_____
Other (specify)	_____	_____	_____
Combination process/cooling(if not separable)	_____	_____	_____
TOTAL	100%	100%	

Are there peak periods of use? Seasonal _____. Number of Shifts? _____How many days per week do you operate? _____

City/Company Code_____

4. CONSERVATION PRACTICES

What kind of conservation measures are you current using, or planning to use?

(check appropriate columns, specifying dates if possible)

Practice	Implemented	Planned	None	Comments (if any)
Sanitary Devices				
Recycle/Reuse				
Water Saving Equipment (Process/cooling)				
Shut-off Mechanism				
Self-supply				
Other Conservation Specify_____				

How likely are the planned measures?

What prompted you to implement or to consider these measures?

Do you have any idea of how much water you have been able to save?

(if measures are planned) How much do you think you will be able to save?

(If checked: Would you be willing to talk more about these conservation measures with the people on our team who are studying industrial conservation?)

NOTES:

ALL MAJOR USERS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
1	TOTAL	24748.5	26530.3	-6.7	412730	60.0

TYPEGRP=INDUSTRIAL

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
2	SUBTOTAL	13136.2	16811.6	-21.9	101479	129.4

TYPEGRP=INDUSTRIAL SICGRP=FOOD PROCESSING

OBS	MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
3	309.0	325.0	-4.9	200	1545.0
4	191.4	115.5	65.7	866	221.0
5	175.0	207.6	-15.7	394	444.2
6	139.1	227.5	-38.9	315	441.6
7	110.1	38.4	186.7	197	558.9
8	93.9	0.0	.	1900	49.4
9	91.4	5.0	.	20	4570.0
10	80.3	75.1	6.9	600	133.8
11	79.3	86.5	-8.3	260	305.0
12	68.4	69.5	-1.6	210	325.7
13	63.0	65.4	-3.7	420	150.0
14	57.3	5.0	.	50	1146.0
15	54.3	44.9	20.9	300	181.0
16	41.8	5.0	.	650	64.3
17	35.0	40.8	-14.2	800	43.8
18	24.4	15.8	54.4	500	48.8
19	24.2	40.3	-40.0	250	96.8
20	23.6	45.6	-48.2	19	1242.1
21	22.7	5.0	.	112	202.7
22	22.4	5.0	.	100	224.0
23	19.7	12.1	62.8	80	246.2
24	19.7	4.8	310.4	202	97.5
25	17.9	34.7	-48.4	400	44.7
26	17.0	42.6	-60.1	100	170.0
27	16.8	5.0	.	70	240.0
28	15.3	38.1	-59.8	300	51.0
29	13.9	5.0	.	100	139.0
30	11.1	9.4	18.1	145	76.6
31	10.3	5.0	.	25	412.0
32	8.2	13.9	-41.0	80	102.5
33	7.6	19.9	-61.8	60	126.7
34	7.1	37.8	-81.2	190	37.4
35	5.0	17.1	.	25	200.0
36	4.0	51.2	-92.2	499	8.0
37	3.3	13.6	-75.7	75	44.0
38	1.7	10.6	-84.0	.	.
39	0.2	38.3	-99.5	125	1.6
40	0.0	49.9	-100.0	0	.
41	0.0	16.3	-100.0	0	.
42	0.0	60.1	-100.0	0	.

MAJOR USERS IN 1980--BY INDUSTRY

TYPEGRP=INDUSTRIAL SICGRP=FOOD PROCESSING

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
43		0.0	159.8	-100.0	0	.
44		.	59.1	.	7	.
45		.	23.8	.	.	.
46		.	13.7	.	.	.
47		.	54.1	.	12	.
48	SUBTOTAL	1885.4	2218.8	-15.0	10658	176.9

TYPEGRP=INDUSTRIAL SICGRP=TEXTILES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
49		219.0	150.2	45.8	200	1095.0
50		13.5	5.0	.	90	150.0
51		11.2	39.6	-71.7	200	56.0
52		10.6	5.0	.	128	82.8
53		4.7	61.9	-92.4	350	13.4
54		0.0	35.2	-100.0	0	.
55		0.0	51.6	-100.0	0	.
56	SUBTOTAL	259.0	358.5	-27.8	968	267.6

TYPEGRP=INDUSTRIAL SICGRP=APPAREL

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
57		10	5.1	96.1	120	83.3
58	SUBTOTAL	10	5.1	96.1	120	83.3

TYPEGRP=INDUSTRIAL SICGRP=LUMBER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
59		12.7	5	.	35	362.9
60	SUBTOTAL	12.7	5	.	35	362.9

TYPEGRP=INDUSTRIAL SICGRP=PAPER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
61		193.3	92.4	109.2	738	261.9
62		125.6	205.0	-38.7	2400	52.3
63		55.0	50.7	8.5	300	183.3
64		26.3	5.0	.	105	250.5
65		5.0	47.9	.	285	17.5
66		3.5	18.6	-81.2	175	20.0
67		0.0	13.1	-100.0	0	.
68		0.0	22.2	-100.0	0	.
69	SUBTOTAL	408.7	454.9	-10.2	4003	102.1

TYPEGRP=INDUSTRIAL SICGRP=PRINTING

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
70		90.0	99.1	-9.2	2000	45.0
71		20.1	26.3	-23.6	650	30.9
72		12.8	34.4	-62.8	925	13.8
73	SUBTOTAL	122.9	159.8	-23.1	3575	34.4

TYPEGRP=INDUSTRIAL SICGRP=CHEMICALS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
74		494.1	417.0	18.5	310	1593.9
75		159.5	136.9	16.5	138	1155.8
76		142.9	72.9	96.0	300	476.3
77		46.8	42.6	9.9	788	59.4
78		34.0	42.6	-20.2	14	2428.6
79		33.4	79.6	-58.0	527	63.4
80		31.8	48.0	-33.8	100	318.0
81		26.2	67.5	-61.2	97	270.1
82		21.7	16.1	34.8	400	54.2
83		20.9	39.0	-46.4	250	83.6
84		8.8	13.8	-36.2	325	27.1
85		5.0	18.0	.	62	80.6
86		.	76.8	.	.	.
87		.	18.6	.	.	.
88	SUBTOTAL	1025.1	1089.4	-5.9	3311	309.6

TYPEGRP=INDUSTRIAL SICGRP=PETROLEUM

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
89		75.7	70.4	7.5	157	482.2
90	SUBTOTAL	75.7	70.4	7.5	157	482.2

TYPEGRP=INDUSTRIAL SICGRP=RUBBER & PLASTICS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
91		215.0	242.9	-11.5	335	641.8
92		206.7	765.4	-73.0	1375	150.3
93		69.1	82.2	-15.9	300	230.3
94		52.7	48.0	9.8	200	263.5
95		28.7	15.2	88.8	840	34.2
96		25.5	5.0	.	700	36.4
97		25.1	.	.	100	251.0
98		24.2	31.0	-21.9	120	201.7
99		22.4	5.0	.	75	298.7
100		19.7	57.4	-65.7	950	20.7
101		18.6	35.6	-47.8	500	37.2
102		17.7	18.3	-3.3	200	88.5
103		13.4	25.0	-46.4	65	206.2
104		12.4	0.0	.	100	124.0
105		12.0	13.7	-12.4	170	70.6

TYPEGRP=INDUSTRIAL SICGRP=RUBBER & PLASTICS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
106		11.8	33.1	-64.4	100	118.0
107		7.5	14.7	-49.0	50	150.0
108		7.3	12.5	-41.6	17	429.4
109		5.1	73.2	-93.0	.	.
110		5.0	51.7	.	150	33.3
111		5.0	25.1	.	.	.
112		5.0	12.0	.	15	333.3
113		5.0	20.5	.	10	500.0
114		5.0	12.9	.	100	50.0
115		5.0	23.0	.	75	66.7
116		5.0	12.2	.	.	.
117		3.7	24.4	-84.8	.	.
118		.	35.6	.	.	.
119		.	20.2	.	.	.
120		.	34.0	.	.	.
121	SUBTOTAL	833.6	1749.8	-52.4	6547	127.3

TYPEGRP=INDUSTRIAL SICGRP=LEATHER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
122		31.0	10.2	203.9	44	704.5
123		24.5	50.7	-51.7	95	257.9
124		22.6	24.0	-5.8	85	265.9
125		15.6	5.0	.	85	183.5
126		15.6	5.0	.	40	390.0
127		15.2	5.0	.	29	524.1
128		11.0	18.1	-39.2	50	220.0
129		10.7	5.0	.	56	191.1
130		10.1	26.7	-62.2	45	224.4
131		5.0	17.3	.	.	.
132		5.0	13.6	.	.	.
133		0.0	10.7	-100.0	0	.
134		0.0	62.9	-100.0	0	.
135		0.0	13.5	-100.0	0	.
136		.	17.3	.	.	.
137	SUBTOTAL	166.3	285.0	-41.6	529	314.4

TYPEGRP=INDUSTRIAL SICGRP=STONE CLAY & GLASS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
138		363.0	402.0	-9.7	3700	98.1
139		31.4	41.6	-24.5	108	290.7
140		8.4	10.5	-20.0	80	105.0
141	SUBTOTAL	402.8	454.1	-11.3	3888	103.6

TYPEGRP=INDUSTRIAL SICGRP=PRIMARY METALS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
142		138.6	33.7	311.3	188	737.2
143		82.3	57.6	42.9	241	341.5
144		62.1	105.8	-41.3	250	248.4
145		55.2	48.6	13.6	290	190.3
146		29.3	80.0	-63.4	100	293.0
147		22.1	22.6	-2.2	250	88.4
148		18.7	21.7	-13.8	512	36.5
149		18.3	19.7	-7.1	150	122.0
150		17.5	65.0	-73.1	50	350.0
151		14.1	18.9	-25.4	40	352.5
152		10.3	18.2	-43.4	450	22.9
153		0.0	42.8	-100.0	0	.
154		0.0	106.2	-100.0	0	.
155	SUBTOTAL	468.5	640.8	-26.9	2521	185.8

TYPEGRP=INDUSTRIAL SICGRP=FABRICATED METALS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
156		185.8	502.8	-63.0	3000	61.9
157		113.7	166.6	-31.8	1152	98.7
158		59.2	38.5	53.8	110	538.2
159		58.0	128.7	-54.9	71	816.9
160		33.7	.	.	65	518.5
161		32.6	38.1	-14.4	350	93.1
162		32.3	22.7	42.3	130	248.5
163		31.2	19.6	59.2	300	104.0
164		31.2	29.2	6.8	90	346.7
165		22.7	53.7	-57.7	9	2522.2
166		21.8	33.0	-33.9	80	272.5
167		20.0	23.6	-15.3	120	166.7
168		17.1	5.0	.	30	570.0
169		16.0	5.0	.	25	640.0
170		16.0	25.5	-37.3	30	533.3
171		15.3	5.0	.	87	175.9
172		15.3	5.0	.	500	30.6
173		10.9	5.7	91.2	35	311.4
174		10.9	5.0	.	150	72.7
175		9.6	12.8	-25.0	35	274.3
176		9.6	13.4	-28.4	120	80.0
177		8.2	41.9	-80.4	200	41.0
178		7.6	16.9	-55.0	18	422.2
179		5.0	17.2	.	300	16.7
180		5.0	15.4	.	100	50.0
181		5.0	13.3	.	22	227.3
182		5.0	16.0	.	90	55.6
183		0.0	40.0	-100.0	0	.
184	SUBTOTAL	798.7	1299.6	-38.5	7219	110.6

TYPEGRP=INDUSTRIAL SICGRP=MACHINERY

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
185		232.9	0.0	.	579	402.2
186		203.8	0.0	.	80	2547.5
187		58.5	25.1	133.1	760	77.0
188		56.9	76.1	-25.2	350	162.6
189		45.0	32.9	36.8	250	180.0
190		33.7	20.9	61.2	450	74.9
191		32.6	27.1	20.3	1335	24.4
192		25.9	56.3	-54.0	60	431.7
193		25.0	29.9	-16.4	400	62.5
194		23.3	28.4	-18.0	65	358.5
195		14.9	3.9	282.1	500	29.8
196		14.4	0.0	.	1900	7.6
197		10.4	17.6	-40.9	1200	8.7
198		5.0	13.6	.	.	.
199		5.0	12.1	.	.	.
200		0.0	25.8	-100.0	0	.
201		0.0	14.2	-100.0	0	.
202	SUBTOTAL	787.3	383.9	105.1	7929	99.3

TYPEGRP=INDUSTRIAL SICGRP=ELECTRONICS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
203		377.0	290.6	29.7	1200	314.2
204		294.3	553.9	-46.9	4000	73.6
205		100.0	105.0	-4.8	500	200.0
206		93.9	160.5	-41.5	2500	37.6
207		85.8	59.1	45.2	292	293.8
208		42.0	67.9	-38.1	900	46.7
209		41.0	63.7	-35.6	515	79.6
210		31.3	34.4	-9.0	1000	31.3
211		25.4	5.0	.	450	56.4
212		24.9	37.8	-34.1	500	49.8
213		24.8	25.6	-3.1	700	35.4
214		24.3	5.0	.	300	81.0
215		17.9	16.9	5.9	200	89.5
216		17.7	5.0	.	520	34.0
217		16.0	17.9	-10.6	500	32.0
218		15.9	26.7	-40.4	436	36.5
219		15.2	8.0	90.0	80	190.0
220		13.8	5.0	.	200	69.0
221		13.8	5.0	.	450	30.7
222		12.4	13.1	-5.3	25	496.0
223		12.2	5.0	.	1707	7.1
224		11.1	.	.	10	1110.0
225		10.2	6.1	67.2	550	18.5
226		9.3	12.1	-23.1	140	66.4
227		6.9	12.6	-45.2	240	28.7
228		5.1	355.1	-98.6	200	25.5
229		0.0	37.8	-100.0	0	.
230		0.0	17.0	-100.0	0	.
231		.	23.6	.	.	.
232	SUBTOTAL	1342.2	1975.4	-32.1	18115	74.1

12

TYPEGRP=INDUSTRIAL SICGRP=TRANSPORTATION EQUIPMENT

5

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
233		220.0	278.0	-20.9	4684	47.0
234		204.2	198.6	2.8	1000	204.2
235		157.8	193.7	-18.5	1500	105.2
236		113.3	66.0	71.7	650	174.3
237		43.9	5.0	.	250	175.6
238	SUBTOTAL	739.2	741.3	-0.3	8084	91.4

TYPEGRP=INDUSTRIAL SICGRP=INSTRUMENTS

9

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
239		466.4	417.2	11.8	5500	84.8
240		290.0	572.0	-49.3	200	1450.0
241		183.9	371.7	-50.5	2900	63.4
242		110.8	70.4	57.4	3000	36.9
243		51.8	42.8	21.0	375	138.1
244		50.8	37.9	34.0	1400	36.3
245		46.1	38.9	18.5	1328	34.7
246		30.5	184.4	-83.5	700	43.6
247		22.3	5.0	.	1200	18.6
248		13.7	12.4	10.5	200	68.5
249		13.3	20.4	-34.8	300	44.3
250		11.8	5.0	.	450	26.2
251		10.6	4.8	120.8	268	39.6
252		4.4	15.1	-70.9	660	6.7
253	SUBTOTAL	1306.4	1798.0	-27.3	18481	70.7

TYPEGRP=INDUSTRIAL SICGRP=MISCELLANEOUS MANUFACTURING

3

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
254		587.4	447.5	31.3	1500	391.6
255		55.2	.	.	600	92.0
256		21.3	.	.	250	85.2
257		15.9	66.1	-75.9	950	16.7
258		5.0	10.2	.	25	200.0
259		0.0	73.9	-100.0	0	.
260	SUBTOTAL	684.8	597.7	14.6	3325	206.0

TYPEGRP=INDUSTRIAL SICGRP=UTILITIES

4

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
261		999.1	1016.4	-1.7	500	1998.2
262		413.7	420.7	-1.7	200	2068.5
263		109.8	155.4	-29.3	226	485.8
264		37.2	25.6	45.3	100	372.0
265		5.0	24.1	.	.	.
266	SUBTOTAL	1564.8	1642.2	-4.7	1026	1525.1

TYPEGRP=INDUSTRIAL SICGRP=LAUNDRIES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
267		86.7	79.5	9.1	175	495.4
268		25.2	29.1	-13.4	80	315.0
269		21.5	5.0	.	70	307.1
270		19.7	40.9	-51.8	150	131.3
271		16.9	5.0	.	63	268.3
272		14.7	.	.	100	147.0
273		14.1	22.7	-37.9	100	141.0
274		13.5	5.0	.	100	135.0
275		10.0	.	.	150	66.7
276		5.0	13.6	.	.	.
277		5.0	13.6	.	.	.
278		.	17.4	.	.	.
279		.	13.3	.	.	.
280	SUBTOTAL	232.3	245.1	-5.2	988	235.1

TYPEGRP=INDUSTRIAL SICGRP=OTHER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
281		9.8	31.7	-69.1	.	.
282		0.0	41.8	-100.0	0	.
283		0.0	15.0	-100.0	.	.
284		0.0	34.5	-100.0	.	.
285		0.0	30.7	-100.0	.	.
286		0.0	30.7	-100.0	.	.
287		.	126.7	.	.	.
288		.	41.8	.	.	.
289		.	30.9	.	.	.
290		.	17.5	.	.	.
291		.	81.6	.	.	.
292		.	23.4	.	.	.
293		.	14.8	.	.	.
294		.	19.9	.	.	.
295		.	14.3	.	.	.
296		.	26.1	.	.	.
297		.	12.7	.	.	.
298		.	21.3	.	.	.
299		.	21.4	.	.	.
300	SUBTOTAL	9.8	636.8	-98.5	0	.

TYPEGRP=COMMERCIAL

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
301	SUBTOTAL	3437.9	1902.8	80.7	167505	20.5

TYPEGRP=COMMERCIAL SICGRP=TRANSPORTATION & PUBLIC SVCS

3

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
302		160.3	146.2	9.6	195	822.1
303		111.9	44.9	149.2	100	1119.0
304		57.1	64.3	-11.2	150	380.7
305		17.7	.	.	150	118.0
306		5.0	32.3	.	.	.
307		4.6	15.4	-70.1	100	46.0
308		.	16.0	.	.	.
309	SUBTOTAL	356.6	319.1	11.8	695	513.1

TYPEGRP=COMMERCIAL SICGRP=UTILITIES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
310		36.9	70.9	-48.0	2000	18.4
311	SUBTOTAL	36.9	70.9	-48.0	2000	18.4

TYPEGRP=COMMERCIAL SICGRP=TRADE

4

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
312		81.7	105.0	-22.2	350	233.4
313		40.4	5.0	.	3000	13.5
314		36.0	22.0	63.6	500	72.0
315		25.4	28.0	-9.3	2300	11.0
316		19.5	12.1	61.2	700	27.9
317		17.5	5.0	.	500	35.0
318		11.7	5.0	.	110	106.4
319		11.2	5.0	.	10	1120.0
320		10.9	5.0	.	200	54.5
321		10.2	5.0	.	150	68.0
322		7.9	16.9	-53.3	30	263.3
323		5.0	12.6	.	.	.
324		5.0	10.1	.	.	.
325		5.0	18.1	.	.	.
326		0.0	108.7	-100.0	0	.
327	SUBTOTAL	287.4	363.5	-20.9	7850	36.6

TYPEGRP=COMMERCIAL SICGRP=RESTAURANTS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
328		24.4	5.0	.	200	122.0
329		14.8	8.6	72.1	200	74.0
330		13.0	9.8	32.7	200	65.0
331		12.3	5.0	.	200	61.5
332		10.7	29.9	-64.2	350	30.6
333		10.6	3.7	186.5	150	70.7
334		4.4	11.3	-61.1	.	.
335	SUBTOTAL	90.2	73.3	23.1	1300	69.4

TYPEGRP=COMMERCIAL SICGRP=OFFICES

OBS	MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
336	87.1	.	.	5000	17.4
337	78.8	5.0	.	8350	9.4
338	78.0	76.9	1.4	8200	9.5
339	72.3	0.0	.	2500	28.9
340	63.6	.	.	2500	25.4
341	60.8	111.9	-45.7	.	.
342	47.1	.	.	4000	11.8
343	43.3	5.0	.	4300	10.1
344	41.0	0.0	.	4000	10.3
345	40.9	0.0	.	7000	5.8
346	40.7	0.0	.	3500	11.6
347	34.9	.	.	5000	7.0
348	31.8	0.0	.	5200	6.1
349	28.3	40.0	-29.3	6000	4.7
350	28.1	.	.	3000	9.4
351	27.0	.	.	2900	9.3
352	26.9	0.0	.	4000	6.7
353	26.1	0.0	.	3800	6.9
354	22.7	0.0	.	2200	10.3
355	22.3	18.7	19.3	4000	5.6
356	22.2	21.0	5.7	600	37.0
357	21.9	5.0	.	2200	10.0
358	21.3	0.0	.	2650	8.0
359	20.9	5.0	.	1000	20.9
360	19.8	.	.	1500	13.2
361	19.5	29.1	-33.0	1800	10.8
362	19.0	5.0	.	4500	4.2
363	19.0	.	.	2000	9.5
364	18.6	28.0	-33.6	3000	6.2
365	18.2	.	.	1800	10.1
366	17.5	19.3	-9.3	3000	5.8
367	17.5	.	.	2500	7.0
368	15.4	5.0	.	1000	15.4
369	14.5	.	.	1000	14.5
370	13.6	.	.	1400	9.7
371	13.5	.	.	1400	9.6
372	13.4	.	.	1200	11.2
373	13.1	.	.	1300	10.1
374	13.0	.	.	1309	9.9
375	12.7	.	.	1200	10.6
376	12.5	.	.	1800	6.9
377	12.2	.	.	1200	10.2
378	11.8	.	.	800	14.7
379	11.7	.	.	1700	6.9
380	11.6	.	.	1100	10.5
381	11.5	.	.	1200	9.6
382	11.2	.	.	1100	10.2
383	10.4	.	.	1000	10.4
384	10.3	.	.	1000	10.3
385	10.3	.	.	1000	10.3
386	10.2	.	.	1000	10.2
387	10.2	.	.	1000	10.2
388	10.0	.	.	1000	10.0
389	5.0	24.5	.	.	.

TYPEGRP=COMMERCIAL SICGRP=OFFICES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
390		5.0	13.1	.	.	.
391		5.0	12.7	.	.	.
392	SUBTOTAL	1405.2	425.2	230.5	136709	10.3

TYPEGRP=COMMERCIAL SICGRP=HOTELS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
393		135.2	5.0	.	1100	122.9
394		82.1	5.0	.	700	117.3
395		56.0	5.0	.	500	112.0
396		48.4	44.8	8.0	400	121.0
397		47.2	5.0	.	425	111.1
398		38.2	0.0	.	400	95.5
399		33.8	5.0	.	350	96.6
400		28.4	5.0	.	200	142.0
401		22.1	5.0	.	900	24.6
402		21.7	5.0	.	250	86.8
403		20.5	5.0	.	250	82.0
404		19.8	.	.	200	99.0
405		19.0	5.0	.	200	95.0
406		17.8	2.3	673.9	20	890.0
407		17.4	13.5	28.9	200	87.0
408		14.4	.	.	175	82.3
409		13.7	5.0	.	150	91.3
410		13.7	27.7	-50.5	200	68.5
411		13.4	12.0	11.7	200	67.0
412		13.2	5.0	.	150	88.0
413		13.0	.	.	150	86.7
414		12.3	5.0	.	150	82.0
415		12.1	0.0	.	150	80.7
416		11.8	0.0	.	125	94.4
417		11.5	5.0	.	200	57.5
418		10.9	5.0	.	100	109.0
419	SUBTOTAL	747.6	175.3	326.5	7845	95.3

TYPEGRP=COMMERCIAL SICGRP=RECREATION

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
420		32.9	.	.	100	329.0
421		31.6	5.0	.	100	316.0
422		19.4	5.0	.	300	64.7
423		16.9	5.0	.	100	169.0
424		15.6	18.0	-13.3	50	312.0
425		13.5	21.7	-37.8	80	168.8
426		6.8	17.2	-60.5	.	.
427	SUBTOTAL	136.7	71.9	90.1	730	187.3

TYPEGRP=COMMERCIAL SICGRP=HEALTH SERVICES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
428		18.0	17	5.9	300	60.0
429		13.1	5	.	700	18.7
430		10.5	5	.	600	17.5
431	SUBTOTAL	41.6	27	54.1	1600	26.0

TYPEGRP=COMMERCIAL SICGRP=RESEARCH

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
432		115.8	77.7	49.0	800	144.7
433		64.5	54.6	18.1	500	129.0
434		45.2	44.5	1.6	2100	21.5
435		27.0	5.0	.	731	36.9
436		25.1	87.4	-71.3	1885	13.3
437		20.6	.	.	100	206.0
438		17.4	0.0	.	160	108.7
439	SUBTOTAL	315.6	269.2	17.2	6276	50.3

TYPEGRP=COMMERCIAL SICGRP=OTHER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
440		20.1	87.6	-77.1	2500	8.0
441		0.0	19.8	-100.0	.	.
442	SUBTOTAL	20.1	107.4	-81.3	2500	8.0

TYPEGRP=INSTITUTIONAL

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
443	SUBTOTAL	5335.6	5327.8	0.1	113345	47.1

TYPEGRP=INSTITUTIONAL SICGRP=NURSING HOMES/LONG TERM CARE

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
444		158.3	207.7	-23.8	2900	54.6
445		63.4	18.8	237.2	2000	31.7
446		40.1	29.6	35.5	600	66.8
447		39.4	5.0	.	719	54.8
448		36.6	50.9	-28.1	600	61.0
449		35.0	40.0	-12.5	800	43.8
450		33.3	62.8	-47.0	500	66.6
451		25.1	30.4	-17.4	1000	25.1
452		17.3	14.3	21.0	450	38.4
453		15.7	5.0	.	100	157.0
454		14.0	13.7	2.2	.	.
455		11.0	5.0	.	200	55.0
456		0.0	37.5	-100.0	.	.
457		.	12.8	.	.	.

TYPEGRP=INSTITUTIONAL SICGRP=NURSING HOMES/LONG TERM CARE

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
458	SUBTOTAL	489.2	533.5	-8.3	9869	49.6

TYPEGRP=INSTITUTIONAL SICGRP=HOSPITALS

OBS	MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
459	233.9	256.6	-8.8	7800	30.0
460	156.0	0.0	.	4000	39.0
461	123.8	161.4	-23.3	3600	34.4
462	115.6	101.2	14.2	3457	33.4
463	110.5	64.8	70.5	3600	30.7
464	109.2	112.1	-2.6	1900	57.5
465	98.7	80.5	22.6	1788	55.2
466	97.8	109.1	-10.4	4200	23.3
467	92.7	88.8	4.4	2800	33.1
468	80.0	59.3	34.9	1000	80.0
469	66.1	39.6	66.9	1300	50.8
470	63.3	48.8	29.7	2000	31.6
471	50.4	25.0	101.6	1700	29.6
472	49.0	39.4	24.4	1700	28.8
473	44.4	43.9	1.1	1400	31.7
474	43.4	37.9	14.5	1400	31.0
475	43.2	30.4	42.1	1281	33.7
476	42.1	23.9	76.2	1600	26.3
477	38.3	44.4	-13.7	2000	19.1
478	36.4	74.6	-51.2	2100	17.3
479	36.0	46.1	-21.9	300	120.0
480	31.8	0.0	.	1200	26.5
481	30.9	35.6	-13.2	900	34.3
482	27.1	5.0	.	1200	22.6
483	26.4	20.8	26.9	900	29.3
484	26.2	22.4	17.0	1000	26.2
485	23.9	5.0	.	800	29.9
486	23.2	59.9	-61.3	800	29.0
487	20.7	5.0	.	700	29.6
488	20.4	11.4	78.9	700	29.1
489	19.9	24.2	-17.8	600	33.2
490	19.2	17.3	11.0	600	32.0
491	18.8	16.0	17.5	600	31.3
492	17.9	5.0	.	600	29.8
493	17.1	20.7	-17.4	600	28.5
494	16.8	5.6	200.0	600	28.0
495	16.5	5.0	.	550	30.0
496	15.9	12.9	23.3	500	31.8
497	13.9	8.9	56.2	500	27.8
498	13.5	.	.	450	30.0
499	13.2	29.6	-55.4	210	62.9
500	11.9	5.0	.	400	29.7
501	11.6	19.2	-39.6	400	29.0
502	11.6	9.6	20.8	440	26.4
503	10.6	5.0	.	350	30.3
504	10.1	5.0	.	300	33.7
505	10.0	5.0	.	500	20.0

TYPEGRP=INSTITUTIONAL SICGRP=HOSPITALS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
506		9.3	31.7	-70.7	.	.
507		5.0	14.9	.	.	.
508		5.0	21.5	.	.	.
509		5.0	11.4	.	.	.
510		5.0	11.7	.	.	.
511		5.0	12.3	.	.	.
512	SUBTOTAL	2244.2	1950.4	15.1	67326	33.3

TYPEGRP=INSTITUTIONAL SICGRP=SCHOOLS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
513		562.0	775.2	-27.5	5450	103.1
514		417.0	534.0	-21.9	7525	55.4
515		384.0	296.7	29.4	5600	68.6
516		294.3	298.4	-1.4	3300	89.2
517		194.9	139.7	39.5	1800	108.3
518		167.0	254.3	-34.3	3550	47.0
519		159.0	74.9	112.3	1800	88.3
520		42.9	60.9	-29.6	820	52.3
521		42.5	37.0	14.9	600	70.8
522		42.0	42.8	-1.9	675	62.2
523		41.4	5.0	.	700	59.1
524		37.1	5.0	.	770	48.2
525		28.6	35.0	-18.3	550	52.0
526		27.9	44.1	-36.7	550	50.7
527		25.3	0.0	.	1400	18.1
528		24.7	29.3	-15.7	300	82.3
529		17.5	18.7	-6.4	80	218.8
530		16.5	12.7	29.9	100	165.0
531		15.6	14.3	9.1	200	78.0
532		13.2	13.7	-3.6	80	165.0
533		12.9	5.0	.	250	51.6
534		11.2	11.4	-1.8	50	224.0
535		9.7	13.9	-30.2	.	.
536		5.0	18.4	.	.	.
537		5.0	11.9	.	.	.
538		0.0	46.8	-100.0	.	.
539	SUBTOTAL	2597.2	2799.1	-7.2	36150	71.8

TYPEGRP=INSTITUTIONAL SICGRP=OTHER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
540		5	22.9	.	.	.
541		.	21.9	.	.	.
542	SUBTOTAL	5	44.8	.	.	.

TYPEGRP=PUBLIC

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
543	SUBTOTAL	1616.3	2042.5	-20.9	30401	53.2

TYPEGRP=PUBLIC SICGRP=TRANSPORTATION & PUBLIC SVCS

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
544		268.5	281.3	-4.6	4700	57.1
545		215.6	247.0	-12.7	680	317.1
546		141.9	112.3	26.4	6400	22.2
547		107.6	447.6	-76.0	1000	107.6
548		44.7	21.2	110.8	5000	8.9
549		16.4	5.0	.	200	82.0
550	SUBTOTAL	794.7	1114.4	-28.7	17980	44.2

TYPEGRP=PUBLIC SICGRP=UTILITIES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
551		131.9	0.0	.	65	2029.2
552		39.4	2.9	1258.6	16	2462.5
553		7.8	26.3	-70.3	.	.
554		0.0	66.1	-100.0	0	.
555		0.0	42.6	-100.0	0	.
556	SUBTOTAL	179.1	137.9	29.9	81	2211.1

TYPEGRP=PUBLIC SICGRP=OFFICES

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
557		88.4	100.5	-12.0	2700	32.7
558		56.8	.	.	1000	56.8
559		33.3	57.0	-41.6	3000	11.1
560		32.3	.	.	630	51.3
561		26.9	44.0	-38.9	3000	9.0
562		22.2	14.5	53.1	900	24.7
563	SUBTOTAL	259.9	216.0	20.3	11230	23.1

TYPEGRP=PUBLIC SICGRP=RECREATION

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
564		165.7	[illegible]	214.4	220	753.2
565		46.8	[illegible]	[illegible]	[illegible]	[illegible]
566		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
567		14.1	0.0	.	150	99.1
568		11.2	.	.	50	224.0
569		8.5	18.4	-53.8	.	.
570		5.0	16.7	.	.	.
571		5.0	18.8	.	.	.
572		5.0	26.2	.	.	.

TYPEGRP=PUBLIC SICGRP=RECREATION

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
573	SUBTOTAL	282.9	192.5	47.0	570	496.3

TYPEGRP=PUBLIC SICGRP=RESEARCH

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
574		94.7	62.9	50.6	540	175.4
575	SUBTOTAL	94.7	62.9	50.6	540	175.4

TYPEGRP=PUBLIC SICGRP=OTHER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
576		5	22.9	.	.	.
577		0	295.9	-100.0	.	.
578	SUBTOTAL	5	318.8	.	.	.

TYPEGRP=INTERTOWN TRANSFER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
579	SUBTOTAL	1222.5	445.6	174.3	0	.

TYPEGRP=INTERTOWN TRANSFER SICGRP=OTHER

OBS		MUMUSE80	MUMUSE72	USECHG	MUEM80	KGPE
580		738.5	445.6	65.7	0	.
581		251.6	.	.	0	.
582		59.2	.	.	0	.
583		45.2	.	.	0	.
584		31.2	.	.	0	.
585		29.3	.	.	0	.
586		26.4	.	.	0	.
587		16.8	.	.	.	.
588		12.7	.	.	0	.
589		11.6	.	.	0	.
590	SUBTOTAL	1222.5	445.6	174.3	0	.

Appendix D-3
Community Surveys

During Phase II, a survey was conducted of local communities regarding their present water systems and future plans for water supply. A copy of the survey is attached. Some 120 communities were surveyed as part of the baseline for the water needs analysis and as input to demand management. The communities surveyed included all communities that are legally eligible to receive water from the MDC, according to Chapter 92, Section of the Massachusetts General Laws, as well as the potential future user communities included in the planning area. Some thirty additional non-MDC communities were surveyed, since the planning area was not finalized at the time that this work was undertaken.

Questions on Local Water Supply and Demand

Date: Contact:

Town: Phone:

	1980	
1. Water received by Town	_____	mil. gal.
a. Ground water self supplied	_____	mil. gal.
b. Ground water purchased	_____	mil. gal.
c. Surface water self supplied	_____	mil. gal.
d. Surface water purchased	_____	mil. gal.
e. Maximum Day Flow 1980	_____	mgd
f. Average Daily Flow 1980	_____	mgd
g. Do you have plans for future water supply expansion?		
Type of expansion and potential yield?		

2. Of the total water received by the town (#1), how much is metered (gallons) . . . . of metered water ,how much is domestic/nondomestic (does this figure include all small-pipe service or is it by use?)

	1980		1970	
	MGY	%	MGY	%
a. Total Water				
b. Metered Water				
Domestic				
Nondomestic*				
c. Unaccounted for				
Unmetered Use				
Leakage				
Meter slippage				

*includes industry, institutions, public buildings

d. If available, provide estimates of annual unmetered public use, e.g. firefighting, street cleaning, lawn watering, etc.

e. Are there major unmetered users (such as schools or hospitals)? (or users whose meteres aren't read and who aren't charged.)

If so, who are they, and do you have any idea how much they use?

3. Water System Characteristics

a. Number of service connections _____
Metered _____
Unmetered _____

b. Number of hydrants _____

c. Total Pipe in Distribution System
4" _____ miles
6" _____ miles
8" _____ miles
10" _____ miles
___ _____ miles
___ _____ miles
___ _____ miles

d. Predominent Pipe Materials % of system
Cast/Ductile Iron _____
Asbestos Cement _____
Steel _____
Concrete _____
Other (specify) _____

e. System Pressures
Approximate percent of system with static pressure at mains of:
less than 50 psi, _____%
50-70 psi, _____%
70-90 psi, _____%
more than 90 psi, _____%

4. Does your community have a regular meter repair/replacement program?

a. Average number of residential meters repaired or replaced per year for each of the last three years ____/____/____
1979 1980 1981

b. Average number of large meters (industrial and commercial) tested per year for each of the last three years ____/____/____
1979 1980 1981

Town:

5. Do you have a leak detection program? Briefly describe program you have undertaken and current funding levels, including the year of last leakage survey.

6. Could you give an estimate of the average age of domestic meter? Large industrial meters?

   a. What percent of the town is metered?

7. Treatment Facilities

Mark an "X" by each treatment process used in your treatment plant

Aeration	Flocculation	Coagulation	Sedimentation	Softening	Filtration	Ion Exchange Softening	Chlorination	Ozonation	Other Disinfectant	Iron/Manganese Removal	Fluoridation	Desalting	Taste/Odor Removal	GAC	No Treatment

8. What percentage of users within your water system are large users and what percentage are small users, if 10 MGY is the delineation?

   % large users % small users

Who are the five largest users of your water supply, or all users using over 10 MGY? Product?

   a. How much did they use in 1972, 1977 and 1980?

User	Product	1972 mgy	1977 mgy	1980 mgy

Town:

9. What are the current water rates for your town?

Flat _____ Fixture Rate _____

Increasing Block _____ Combined Water/Sewer _____

Decreasing Block _____ Other _____

If combined water and sewer: does the town keep separate records of water and sewer costs and revenues?

Does the costs include capital costs, such as depreciation, debt service?

Do they include shared administrative overhead?

10. a. Have water rates changes in last five years? (If so, note previous rates and dates of change.)

Year	Change
____	_____
____	_____
____	_____

b. Do you anticipate any changes in the rates in the future? What?

11. What is an estimate of the average household water cost per year?

12. Have you ever done work in estimating water leakage in homes? What is a reasonable leakage estimate?

13. Are there any large self-supplied users in town (from wells, rivers, etc.)? Who are they? Estimate of water use?

User	Water Use (mgy)
_____	_____
_____	_____
_____	_____
_____	_____

Town:

14. About what percentage of total town households use their own wells

a. Is it anticipated that these will join the public system in the next ten years? _____

15. a. Are there any users in the town who buy water from another source (such as an adjacent town)? Percent or number of connections?

b. Do you supply any users who are not actually located in your town? Who or how much? Number of household connections?

16. Are/were there any ongoing or past conservation programs undertaken locally? When?
Why undertaken?

a. What do/did these entail:

public education _____
device distribution _____
outdoor use ban _____
rate change _____

b. What were the results?

c. Estimate of reduced water use _____%.

d. Has reduction continued or did it last only for duration of conservation efforts?

17. a. Did the '65-'66 drought lower the water table to a level that impacted local ponds, etc?

b. What about the drought of 1980-1981?

18. Have you adopted zoning/non-zoning by law changes since 1975 which protect water supply? Specify.

Aquifer zoning _____ Wetlands zoning _____

Watershed zoning _____ Other _____

Floodplain zoning _____

19. Are any local supply sources potentially endangered by pollution sources, such as landfill, industrial discharges, acid rainfall, etc? Type of pollutant?

20. What would be the most efficient method of connecting to the MDC system?

through adjacent town _____
directly to main MDC transmission line _____
other; explain _____

21. Has total water consumption in your community increased primarily due to local growth or to changes in water use patterns?

22. Do you foresee any changes in water use patterns by households or industries. Over the next 10-20 years?

Town:

For those communities identified by WM as higher GPCD communities than "average" ask 23:

23. The per capital consumption in your town was _____ for 1980. This seems "higher than average" for communities. What is your opinion of the cause of this higher consumption figure?

    Does large industrial use account for this?

    Does large household use?

    Swimming pools?

For towns located within the Plymouth aquifer, ask 24-26.

24. Please identify on the attached map:
    - the existing supply wells
    - planned future supply locations
    - location of any tested areas which have not been developed

25. What were the results of these tests?

26. Could we get the monthly pumpage figures for each well (not total for the system) for period of record.

APPENDIX E - FORECASTS OF POPULATION AND EMPLOYMENT

E-1 Recent Trends in Population- and Employment-Related Indicators

E-2 Framework and Basis for Alternative Forecasts

E-3 The M.E.P.A. Long-Term Forecasts

E-4 Population and Employment Forecasts Used in This Study

E-5 A Recommended Approach for Dealing with the Uncertainty of Growth Forecasts

APPENDIX E-1: RECENT TRENDS IN POPULATION- AND EMPLOYMENT-RELATED INDICATORS

Table E-2 shows the relative growth rates for employment, population, and households in the United States and Massachusetts over the past 30 years. For most time periods and most indicators, Massachusetts' growth has generally occurred at 50 to 75 percent of the U.S. growth rate.

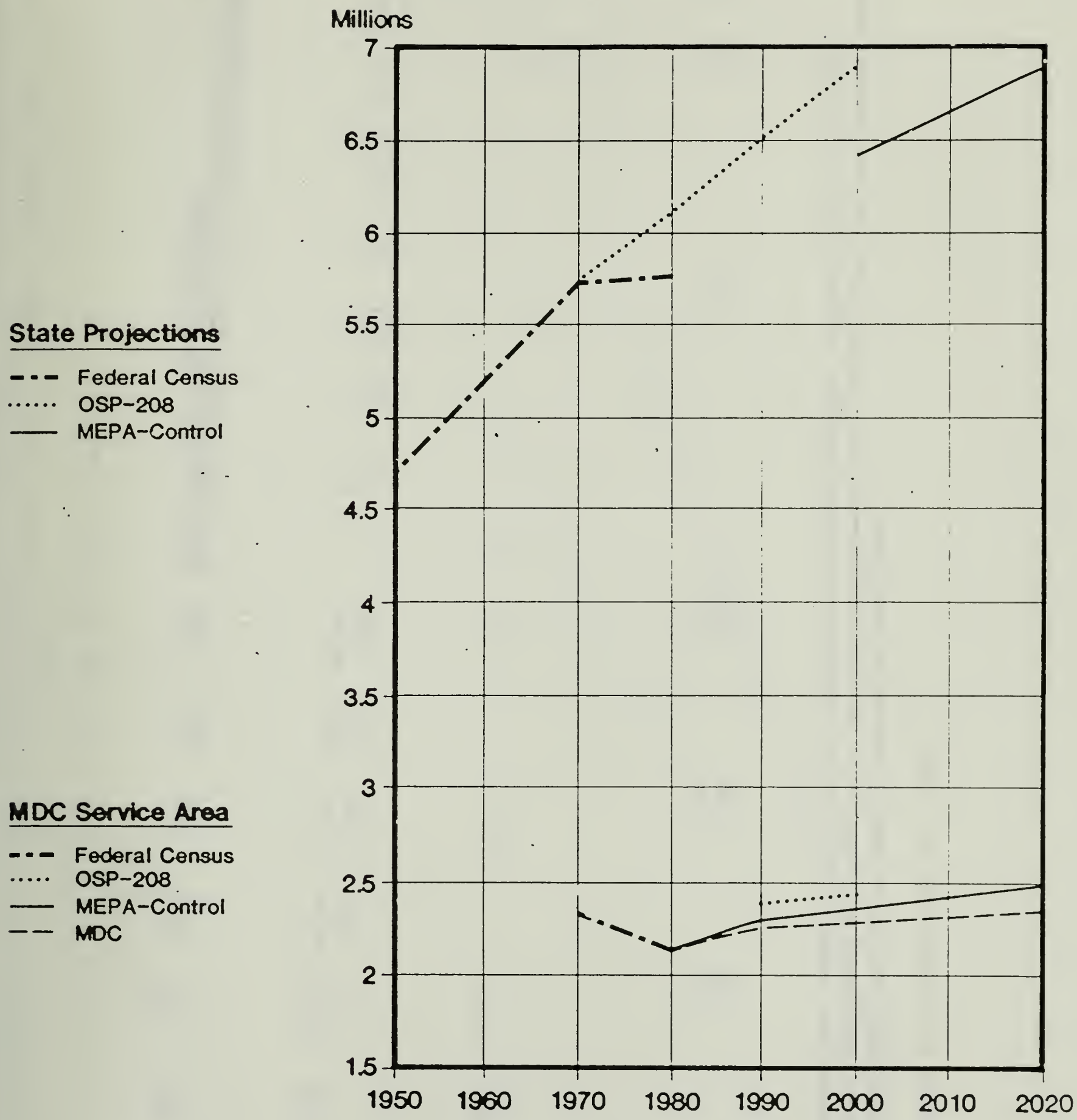
- The exceptions for employment growth are the early 1970s when the 1974-75 recession hit Massachusetts particularly hard resulting in employment growth of only 0.4 percent for the 1970-75 period compared to 8.6 percent for the United States, and the late 1970s when rapid high-technology growth resulted in Massachusetts growth of 16.5 percent compared to 17.5 percent in the United States. (For 1981 and 1982, Massachusetts' performance has actually been stronger than the United States.)

- The exception for population growth was the decade of the 1970s when Massachusetts population growth was only 0.8 percent relative to 9.4 percent for the nation, despite household growth rates of 15.5 percent for Massachusetts, relative to 26.7 percent for the United States.

Figures E-2 and E-3 graphically illustrate the recent relative population and employment trends for Massachusetts and the United States. Because of changing definitions of the Boston Metropolitan area, it is not possible to provide long-time series for this part of the state. However, it should be noted that the planning area for this study represents over one-half of the state's population and employment and does not include some of the more depressed traditional industry areas of Fall River/New Bedford, Lawrence/Haverhill, and western Massachusetts.

Figure E-1.

Population Projections



[illegible]

[illegible]

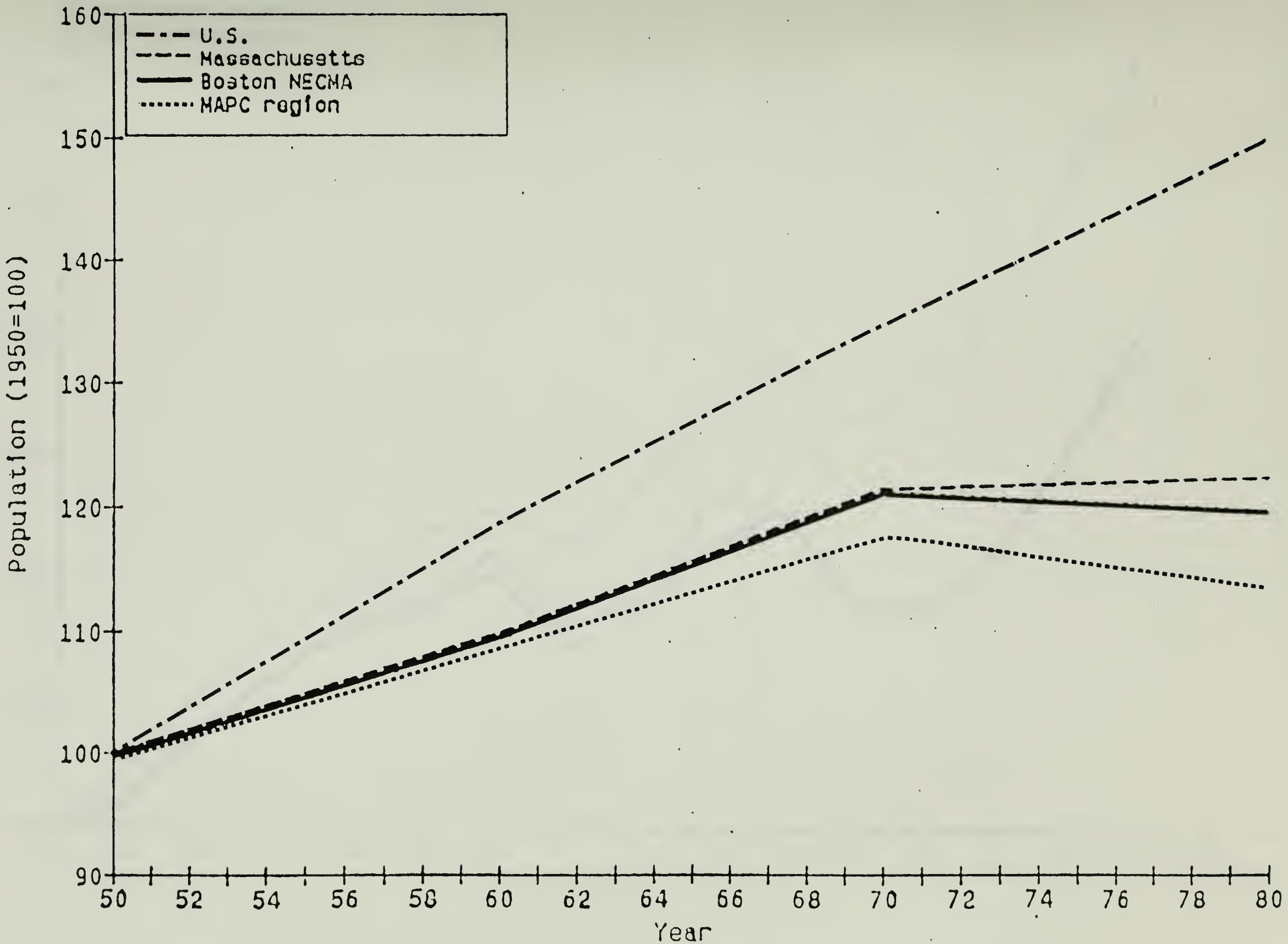
	1950	1960	1965	1970	1975	1980	Percentage Change 1950–60	1960–65	1965–70	1960–70	1970–75	1975–80	1970–80	1960–80
Private Non-Agricultural Employment														
United States	44,738	54,347	60,770	70,920	77,051	90,564	–	11.8	16.7	30.5	8.6	17.5	27.7	66.6
Massachusetts	–	1,917	2,019	2,262	2,272	2,648	–	5.3	12.0	18.0	0.4	16.5	17.1	38.1
[illegible]														
[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]			[illegible]			[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]			[illegible]			[illegible]	[illegible]
[illegible]														
United States	–	51,024		61,450	–	80,377	–	–	–	19.7	–	–	26.7	51.6
Massachusetts	–	1,535	–	1,760	–	2,033	–	–	–	14.7	–	–	15.5	32.4

Source: For employment data: Bureau of Labor Statistics—Employment and Earnings; Coverage: Includes all full- and part-time employees who worked during or received pay for any part of pay period reported. Excludes proprietors, self-employed persons, farm workers, unpaid farm workers, domestic servants, and armed forces.

Source: For population and household data: U.S. Census.

Figure E-2

Population: U.S., Massachusetts, Boston, and MAPC Region 1950-1980 (1950=100)



Employment Trends: U.S., Massachusetts, & Boston NECMA 1964-1979 (1964=100)

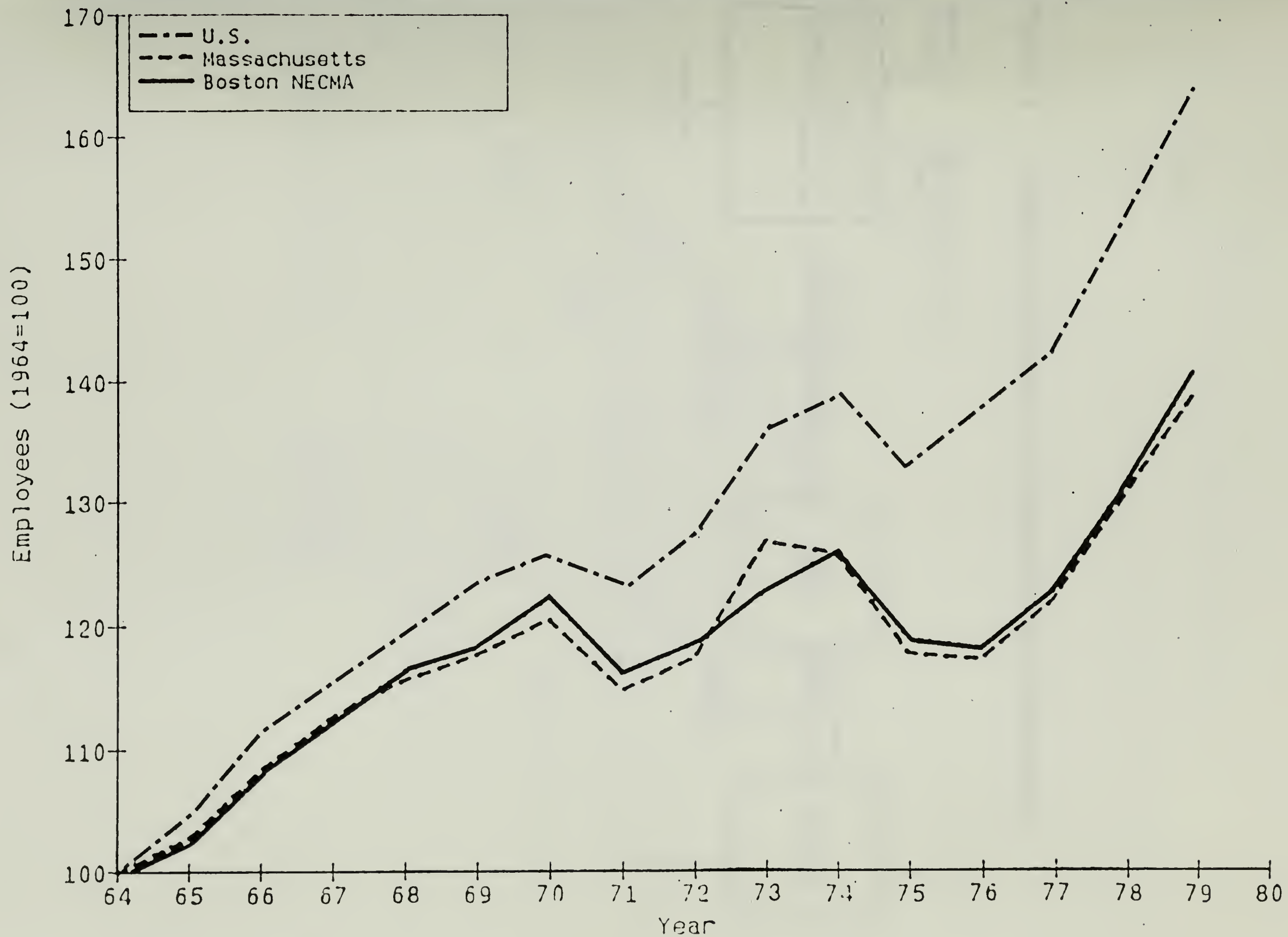
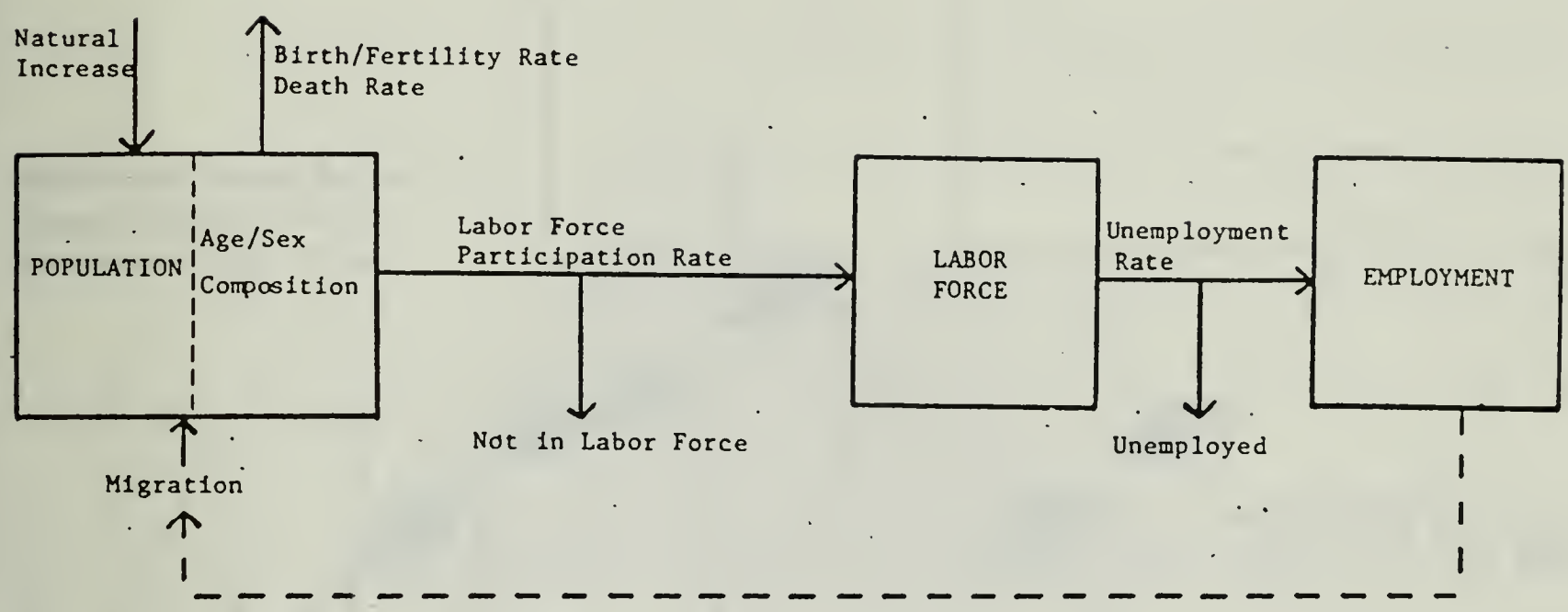


Figure E-4 Relationship Between Population and Employment



Figuro E-5.

Probability of Massachusetts Growth

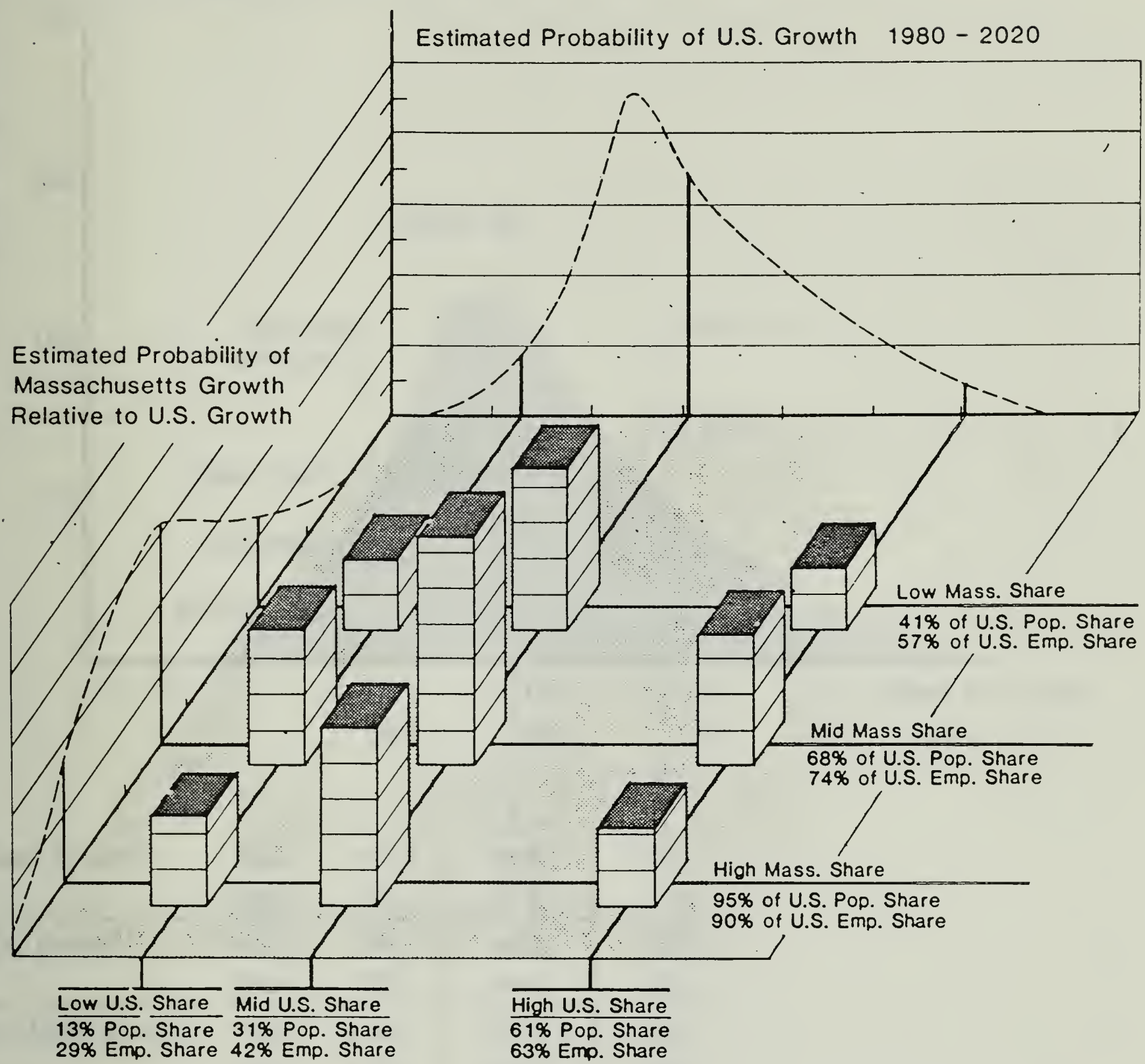
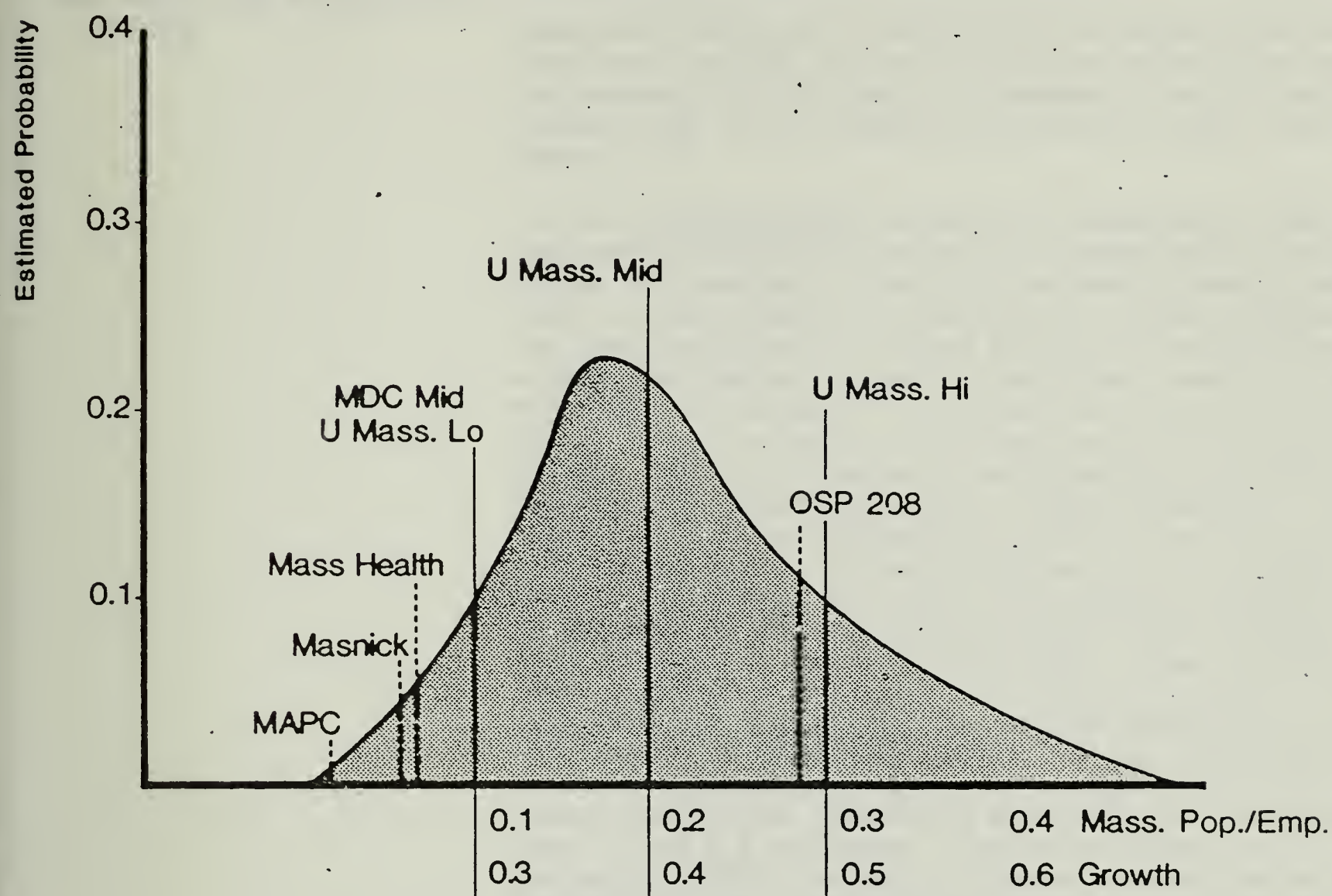


Figure E-6.

Estimated Probabilities of Massachusetts Growth 1980–2020



Mass. Growth	Pop.	10%	20%	29%
	Emp.	31%	41%	51%
MDC Growth	Pop.	6%	15%	24%
	Emp.	35%	46%	55%
Non MDC Growth	Pop.	24%	34%	45%
	Emp.	41%	54%	66%

APPENDIX E-2: FRAMEWORK AND BASIS FOR ALTERNATIVE FORECASTS

Long-term forecasts of population- and employment-related indicators reflect interrelationships between demographic and economic factors that are assumed to operate at the national and at the regional/state/local level. (See Figure E-4.)

At the national level, forecasts of population- and employment-related indicators are assumed to be largely driven by demographic factors. Improved economic conditions are not generally anticipated to have an impact on net immigration to the United States nor are they generally anticipated to have a significant impact on the major driving variables for population forecasts (fertility rates, mortality rates, and household formation rates). There is, however, considerable uncertainty regarding long-term forecasts of these variables. For population-related indicators at the national level, the U.S. Census Bureau forecasts (Series I, II, and III) were used which forecast alternate U.S. population growth of 61 percent, 30 percent, and 13 percent respectively for each series over the 1980-2020 period. These alternative forecasts reflect differences in future fertility rates only with the High Growth Alternative assuming a fertility rate increasing from 1.7 to 2.7 (yielding a population growth of 61 percent by 2020), the Middle Growth Alternative assuming a fertility rate increasing from 1.7 to 2.1 (yielding a population growth of 31 percent by 2020), and the Low Growth Alternative assuming a fertility rate remaining constant at 1.7 (yielding a population growth of 13 percent by 2020). Since these forecasts were developed in 1977, U.S. population has grown slightly above the Series II forecast, but the Census Bureau continues to recommend use of this series as the most likely. Varying economic conditions are, however, expected to influence labor force participation rates, unemployment rates, and thereby employment. For employment-related indicators at the national level the alternate labor force participation rates employed by the DRI forecasts used for the M.E.P.A. model (72 percent under high economic growth, 68 percent under medium economic growth, and 65 percent under low economic growth) were used. Superimposing these on the alternate population forecasts from the Census Bureau yields a high U.S. employment growth of 62 percent, a medium growth rate of 48 percent, and a low growth rate of 29 percent over the 1980-2020 period.

At the regional/state/local level, forecasts of population and employment-related indicators are generally considered to be driven by the interaction between economic and demographic factors.

- Some forecasts are based largely on demographic factors and often assume that it is the characteristics of the region's current population (fertility/mortality rates, past net migration, age structure, etc.) that will determine the region's future labor force and employment.

- Other forecasts are based largely on economic factors and often assume that it is the characteristics of the region's evolving economy (industry composition, business costs, shifting employment shares, etc.) that will determine the region's future and, through migration, its ultimate population.

- The major difference between these two approaches to regional forecasting involves the implicit or explicit assumption about the degree to which relative employment opportunities in a region (as reflected in relative unemployment and employment growth rates) affect net population migration to a region. Some forecasts attempt to address this interaction explicitly. The M.E.P.A. model for example, has been used to simulate alternative relationships based on extensive historical data on the interrelationships.

Because of the uncertainty surrounding these interactions in different types of regional and local economies, the University of Massachusetts M.E.P.A. model was used which forecasts a high relative growth at 91 percent of the national growth rate, a medium relative growth at 75 percent of the national rate, and a low relative growth at 58 percent of the national rate.

APPENDIX E-3: THE M.E.P.A. LONG-TERM FORECAST

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Introduction: Long-Term Equilibrium and Long-Term Forecasting

Long-term equilibrium is a concept dear to the hearts of economists -- yet none can fairly claim to have seen a long-term equilibrium, nor should any economist now living expect to do so. Long-term equilibrium is that situation which would exist after all forces for change currently present in the economy have worked themselves out -- provided that no further changes in factors not considered in the model of an economy (exogenous shocks, in economist's parlance) occur: no wars; shifts in international demand or supply conditions; no technological change, no product innovations, no changes in tastes, no migrations for non-economic reasons, no political disturbances, no marked changes in weather -- in short, no changes in anything not considered with in the purview of the economist, and hence not within the model. Of course, such shocks will occur in greater or smaller magnitude; by their very nature, they cannot be predicted, cannot be incorporated into a forecast. The only thing known in advance is that some such shocks will occur; when, where, and in what form and magnitude, is wholly unknown.

Any forecast is based on a model of any economy -- a conceptual framework which is an economist's version of how a set of important economic relations interact with each other. Such a model describes, in essence, the views of the model's creators as to how the economy reacts to exogenous shocks of various kinds; it can describe the paths that the economy is expected to take in response to all the shocks experienced up to the time of the forecast, and even indicate how, in the distant future, the economy would look after all consequences of those shocks have been fully realized; such a state is long-term equilibrium. But, of course, during the long periods of time it takes for the existing disequilibria to work themselves out, new shocks inevitably occur.

The time periods required for adjustment to long-run equilibrium can be very long. Consider, for example, the history of the textile industry in Massachusetts and Rhode Island. Innovations in the industry in the early nineteenth century set the industry on a high-growth path; the long-term equilibrium then appeared to be one in which southern New England would dominate continental textile production -- which it did through much of the century. But its rate of growth slackened, and turned

into the well-known decline -- changed circumstances (notably the development of economical steam power which reduced the advantage of the abundant water power of New England mills) shifted the long-term equilibrium to a much lower level. The severe dislocation caused by this massive shift of production to other parts of the United States in the twentieth century has continued to this day, well over a half century after it began.

What can be the content of a long-term forecast? It can be only an estimate of the path an economy would take in its adjustment to long-run equilibrium if no other exogenous shocks occurred. No one can predict those shocks; hence, they cannot be incorporated into a model. Yet this fact virtually guarantees that the forecast will be wrong; shocks will occur; the longer the period of the forecast, the greater the expected cumulative impact of such shocks. Over a 25-year period, such impacts can be enormous. Consider the marked changes in the economy in the preceding 25-year period, 1957-82; or the really drastic shocks in the preceding period 1932-1957 (or consider the fate of a 25-year forecast from, say 1927-1952, with the intervening period of the Great Depression, World War II, the transition to a peacetime economy, and the Korean War). Such forecasts would surely have been far off the mark ex post; yet they may well have been accurate descriptions of the path to long-run equilibrium the economy would have taken had not exogenous shocks occurred. It is in that spirit that we make our forecast.

Adjustment Toward Long-Term Equilibrium in the M.E.P.A. Model

The M.E.P.A. model is a model of how the Massachusetts economy reacts to changes in demand for its exports by the rest of the United States. A fundamental relation (for each of the industries considered separately) in the model is:

> Employment for export shipment = MULT · (Relative costs of production) · (Relative labor intensity) · (U.S. employment)

Employment for export in a particular industry is a fraction (MULT) of total U.S. employment industry, after differences in relative costs of production and relative labor intensities are accounted for. In long-run equilibrium, the Massachusetts export share in U.S. total employment would be constant; that fraction would change if relative costs of production, or relative labor intensity (amounts of labor per unit of output), but for no other reason. Thus, the relative costs and relative

labor intensity are, in the model, important mechanisms of economic adjustment; since they are predicted within the model, they serve as important factors in the forecast.

In cases in which an industry is in the process of adjustment to a long-run equilibrium -- most industries -- the MULT term is not constant.

From historical data, one can calculate what value the MULT actually must have had in each quarter to make the equation correct. Changes in the values in a MULT in a consistent direction over time are interpreted as evidence of continuing adjustment of the industry to a long-run equilibrium, the adjustment being necessitated by some exogenous shock in the past.

The changes in MULT, it must be remembered, reflect only changes in ex post share of an industry which are not explained historically by observed changes in relative costs or in labor industry.

A consistent trend, upward or downward, in the MULT for an industry indicates that some adjustment toward a new equilibrium has been taking place. What will be the new equilibrium, and the rate of approach to it? No one really knows. Yet it would be foolish to assume that the new long-run equilibrium has arrived at the time the forecast is made. Some projection forward of further changes in MULT are necessary. The general procedure was to fit exponential growth trends (with respect to time) to the historical values of MULT; growth (or decline) rates implicit in those trends were reduced in some instances on the basis of qualitative judgments about the industries in question. The MULT factors thus computed were then extended into the future, in a manner described below.

It is important to remember that the MULT factors refer solely to export demand as a share of U.S. production; they have no direct effect on demand originating within Massachusetts. Since the MULT factors affect only the Massachusetts share of total production, it is perfectly possible for an industry to have a declining MULT, and yet have an increasing employment forecast; or vice versa. Such a situation could occur for any of a number of reasons: as a result of movements (in direction opposite to the exogenous MULT) in total U.S. demand for the product; in intermediate and final demand within Massachusetts; in Massachusetts relative costs of production; or in Massachusetts relative labor intensity within the industry.

Three Scenarios

All three scenarios -- control (the "most likely outcome"), high growth, and low growth -- derive from a single U.S. forecast (DRI TREND LONG 2007). They, therefore, all incorporate the same assumptions about the future behavior of the U.S. economy; they differ in their assumptions of how the Massachusetts economy will react to that single pattern of the national economy. The three scenarios differ only in the way in which the time trends on the MULT factors were calculated.

In the control forecast, the unit of time to which the estimated rate of growth or decline of the MULT was applied was lengthened; the amount of decline which would have occurred in 20 years under a straight projection became 25 years. This "stretching" of time over the 25-year horizon was accomplished by using time (in quarters) raised to the 0.951545 power in the calculation, rather than time itself, it in recognition of the idea that the trends will sooner or later level off in the approach to the new equilibrium; it provides for a progressive leveling out of both positive and negative trends in the MULTS as time passes, up the far limit of 2007.

The high growth scenario was created by different assumptions about "time-stretching" in the MULT factors. Here, all MULT factors with a positive growth rate were allowed to grow at their full rate; no "stretching" of time was involved; those with negative growth rates, however, were changed so as to have the decline which would be completed in ten years by a simple extrapolation of the MULT factors to be completed only in 25 years -- thus significantly reducing the decline.

The low growth scenario was computed as the obverse of the high growth scenario: those trends in the MULT factors which had negative growth rates were given their full value (no time stretching), while those with positive growth rates were programmed so that the MULT factors which would have been attained in ten years time were not achieved until the twenty-fifth year, significantly reducing their impact.

Total employment was about 5 percent higher and lower than control forecast for the high and low growth scenarios.

In all scenarios, the population growth was adjusted to make the unemployment rate in Massachusetts the same as that of the United States in the final year, 2007. The rationale is simple: in long-term equilibrium, unemploy-

ment in Massachusetts will be the same as in the United States. By 2007, a full generation from now, the adjustments to any current disequilibrium in population will largely have been made, through differential migration rates. Hence there is no reason, on the basis of forces already in operation, to expect the Massachusetts unemployment rate to be either higher than or lower than the United States. Of course, in 2007, it is unlikely that the Massachusetts rate will be equal to the national rate; but there is no basis for predicting whether it will be higher or lower.

The Forecast, 1982-2007

All industries in Massachusetts show a decline in costs of business relative to the United States over this period. The driving force behind this is the fall in wage rates relative to the United States, which fall about one percent over the period. This fall in (relative) wage costs lowers business costs to the various industries in varying amounts, through two mechanisms: the direct effect on relative labor costs (varying with the proportion of total costs which are labor costs); and the effect on the relative costs of materials and other inputs which are purchased from other Massachusetts firms (which depends on the regional purchase coefficient for the inputs; these vary among industries). Clearly the effect of a one-percent change in wage rates on relative business costs can be obtained only through the use of the input-output matrix and the vector of regional purchase coefficients; clearly it will vary among industries.

The M.E.P.A. model includes an elasticity of substitution between labor and other factors of production of unity, so that a one-percent fall in wage rates relative to the United States leads to a rise in labor intensity relative to the United States of one percent. This relation yields another effect of a change in relative wages: not only does a fall in relative wages lead to a fall in relative business costs, it leads to greater relative labor intensity, and hence to a greater amount of employment per unit of output. This change in intensity is phased in only over a 13-year period as capital is renewed.

Within the M.E.P.A. model, demand for Massachusetts exports has a rather high elasticity with respect to relative business costs: -4.2. The falls in business costs relative to the United States lead to an increase in the amount of export demand; this, of course, in turn stimulates domestic demand both via inter-industry demand, and via the increased income (and hence

consumption) of individuals. Again, these spill-over benefits will vary considerably among industries; the changes in shares of export employment among industries bear no simple relation to the shares of total employment among industries.

Over the 25-year period, both the endogenous factors of labor intensity and business costs, on the one hand; and the exogenous adjustment to the long-run disequilibrium situation represented by the changes in MULT factors, on the other, have significant impacts. For the most part, the endogenous factors have operated to raise employment levels; the exogenous MULT factors have worked in a positive direction for a few industries (notably the "high tech" industries: SIC 357, 382, and 39); for the most part, other industries have MULT factors close to constant or declining mildly (e.g., SIC 32, 351, 354, 367, 371, 28); or declining, over the 25-year period, rather sharply (e.g., SIC 25, 354, 355, 22, 30, 31). In most cases of declining MULT factors, the endogenous and exogenous adjustments pull in different directions; over short-term periods, the new result varies; over the long pull, the long-term adjustment inevitably prevails; a significantly declining MULT ultimately dominates any endogenous adjustment mechanism within the model -- at least in this forecast. This result stems from the fact that, for the long-term, the population was forced to make a smooth adjustment to that level which would lead to the same unemployment rate in the United States and Massachusetts in the year 2007. This requirement, taken as a long-run equilibrium condition to be reached by 2007, ensured that population growth was kept in rough balance with employment demand throughout the period -- the constraint becoming more binding, the closer the forecast approached 2007. Thus there was not possibility that the endogenous forces of relative wages (determined by the balance between employment and working age population) and labor intensity could dominate the forecast over the long period, if they could (and would) have, if an exogenous population component had been projected forward. Under these circumstances, the exogenous trends in the adjustment factors in the various industries ultimately dominate the result. This is the consequence of making a forecast via the M.E.P.A. model which is, over a long period, constrained by employment, not by population. Neither employment not population is exogenous in the forecast; but the additional constraint on the unemployment rate in 2007 was satisfied primarily by adjustment in the population, not by the employment level.

APPENDIX E-4: POPULATION AND EMPLOYMENT FORECASTS USED IN THIS STUDY

Table E-3 illustrates the population and employment forecasts used in this study. From these general population and employment forecasts it is necessary to derive forecasts of the other related indicators that are critical to forecasts of future water needs and to allocate growth to different communities in the study area.

TABLE E-3

EMPLOYMENT AND POPULATION FORECASTS USED IN WATER SUPPLY STUDY (000's)

	1980	1990	2000	2007	2020	Cumulative Percentage Change 1980-2020	Annual Percentage Change 1980-2020
Population							
Massachusetts	5,740	6,137	6,418	6,573	6,869	19.7	0.45
44 MDC Communities	2,178	2,278	2,353	-	2,439	12.0	0.28
36 Other Planning Area Communities	742	808	883	-	999	34.6	0.75
Employment							
Massachusetts	2,653	2,957	3,184	3,362	3,746	41.2	0.87
44 MDC Communities	1,257	1,427	1,532	-	1,817	44.6	0.93
36 Other Planning Area Communities	313	372	412	-	487	55.6	1.11

For population-related indicators, this process first entails a forecast of institutional and noninstitutional populations (it was assumed that institutional population will grow at the same rate as total population statewide). It then entails a forecast of household size and households (it was assumed that household size in Massachusetts will continue to mirror the national figures and that relative household size among communities will continue current patterns). Finally, it requires a forecast of new housing units (it was assumed no change in vacancy rates and a mix of single and multiple family units similar to that experienced in the last ten years based on building permit data in each community). Allocations of overall population growth to individual communities was based on the initial allocations arrived at by averaging the MAPC and OSP 208 population forecasts for each community in the study area.

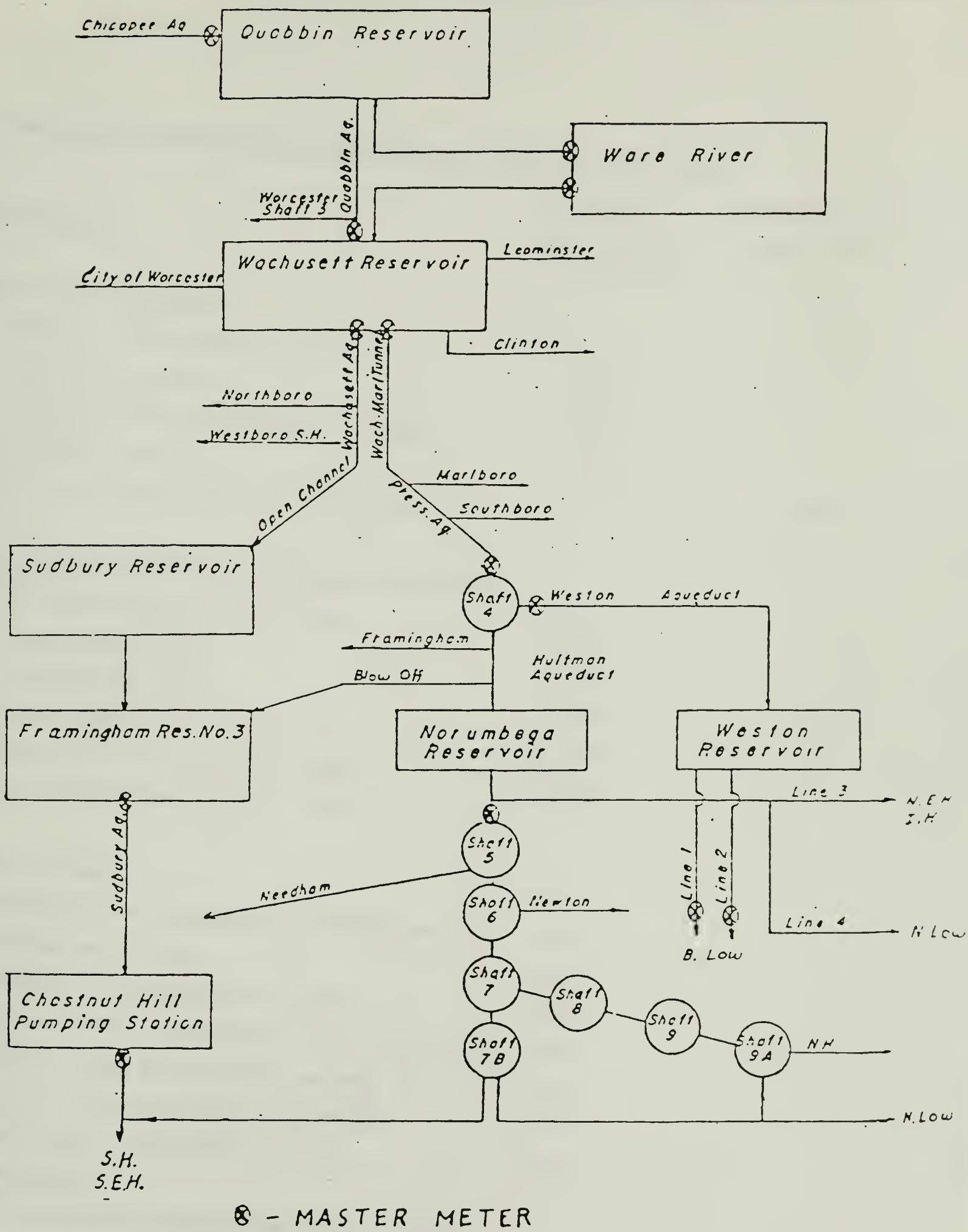
For employment-related indicators, this process first entails a forecast of employment composition (the composition was assumed to be the same as in the M.E.P.A. control forecast under all alternatives statewide, with community allocations based on relative community growth in each industry between 1970 and 1980). It then entails a forecast of industrial production (the relative improvements in productivity by two-digit SIC was assumed to be the same in Massachusetts and the study area as in the rest of the nation).

APPENDIX F: MDC System Use

F.1 MDC Revenue Meters

F.2 1980 MDC System Uses

F-1. The Flow of Water in the Metropolitan Watersystem



⊗ - MASTER METER

F-2. Calculation of MDC System Usage and Unaccounted-For Water 1980

Flow Description	Recorded Flow (mgd)	Unaccounted For Water (mgd)
Chicopee Valley Aqueduct		
1. CVA flow from Quabbin Res.	13.32	
2. Wilbraham meter	0.84	
3. So. Hadley Fire District #1 meter	2.18	
4. Chicopee meter	10.33	
5. CVA unaccounted for (1)-(2)-(3)-(4)		0.01
Wachusett-Marlborough Tunnel (Cosgrove Aqueduct)		
6. WMT flow from Wachusett Res.	311.84	
7. Marlborough meter	3.77	
8. Southborough meter	0.52	
9. Flow to Shaft 4 (6)-(7)-(8)	307.55	
10. Flow recorded at Shaft 4 meter	304.76	
11. WMT unaccounted for (9)-(10)		[illegible]
Sudbury System Waste		
12. Wachusett Res. discharge to Wachuset Aq.	6.14	
13. Northborough meter	0.07	
14. Westboro State Hospital meters	0.09	
15. Flow to Sudbury Reservoir (12)-(13)-(14)	5.98	
16. Blow off from Hultman Aq. to Res. 3	5.74	
17. Total to Sudbury System (15)+(16)	11.72	
18. Total sent to Chestnut Hill via Sudbury Aq.	10.13	
19. Sudbury System unaccounted for (17)-(18)		1.59

F-2 Continued

Flow Description	Recorded Flow (mgd)	Unaccounted For Water (mgd)
MDC Distribution System		
20. Shaft 4 meter	304.76	
21. Weston Aqueduct meter	49.46	
22. Reservoir 3 blow off	5.74	
23. Framingham meters	8.40	
24. Delivered to Norumbega Res. (20)-(21)-(22)-(23)	241.16	
25. Discharge to Schenk's Pond		0.08
26. Discharge from Norumbega Res.to District	241.08	
27. Total delivered to District (18)+(21)+(26)	300.67	
28. Total measured on District Meters	275.02	
29. Distribution System Unaccounted - for		25.65
1980 Total System Usage/Unaccounted-For		30.08 mgd

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